

ON THE AUSTRALIAN *CLIVINIDES* (FAM.
CARABIDÆ .

(REVISION OF THE AUSTRALIAN SPECIES OF THE GENUS *CLIVINA*
WITH THE DESCRIPTION OF A NEW GENUS, *CLIVINARCHUS*).

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The *Clivinides* form a division of the tribe *Scaritini* of world-wide distribution, but found most plentifully in the warmer portions of the globe: they are very plentiful in Australia.

Following Dr. G. H. Horn's classification of the *Carabidæ*, their position will be as follows:—

Family CARABIDÆ.

Sub-Family CARABINÆ.

Tribe SCARITINI.

The *Scaritini* may be divided into two main divisions thus:—

Mentum broad and concealing at sides base of maxillæ..... *Scaritides*.
Base of maxillæ not covered by mentum..... *Clivinides*.

CLIVINIDES.

As represented in the Australian fauna, the *Clivinides* comprise the genera *Dyschirius*, *Clivina*, *Clivinarchus* and *Steganomma*. For the present I have to pass over *Steganomma* which is founded on a unique species, *S. porcatum*, MacL., in the Macleay Museum, Sydney; it is very closely allied to *Clivina*.

For the purposes of the Australian fauna the genera *Dyschirius*, *Clivina* and *Clivinarchus* may be tabulated thus:—

Prothorax globose..... *Dyschirius*.
Prothorax not globose.
 Mesosternal episterna strongly impressed on each side of
 peduncle..... *Clivina*.
 Peduncle without lateral impressions..... *Clivinarchus*.

Genus *CLIVINA*.*

Scolyptus, Putzeys (in part): *Ceratoglossa*, Macleay

The following features of universal application in the genus *Clivina* are extracted from Dr. Horn's definition of the tribe *Scaritini*.†

Eyes not distant from mouth. Head with two supra-orbital setæ. Ligula small and prolonged, bisetose at tip, paraglossæ slender. Palpi with penultimate joint bisetose in front.‡ Thorax with two lateral punctures. Body pedunculate, scutellum not visible between elytra. Sides of elytra narrowly inflexed, margin entire. Metasternal epimera distinct. Posterior coxæ contiguous. Legs stout, the anterior femora especially stout.

To the universal characters given above I would add for the Australian species the following:—

Labrum usually truncate (sometimes the middle lightly advanced), gently declivous to anterior margin; five (rarely) or seven (normally) setigerous punctures above anterior declivity—the lateral puncture on each side larger than the others and the seta rising from it longer than the other setæ and erect (in species with only five setæ the one next to the lateral is wanting); anterior angles rounded, ciliate. Mentum emarginate with a wide median tooth. Clypeus with a seta on each side. Vertex with a ridge on each side above supra-orbital punctures (*facial carina* —“*carène*”

* Latreille, *Consid. Gén. sur les Cr. et les Ins.*

† *Trans. Am. Ent. Soc.* ix. 1881, pp. 119, 120.

‡ The following are Dr. Horn's words in reference to the palps of the *Scaritini*:—“Palpi moderate, terminal joint variable in form, shorter than penultimate (*Scarites*) equal or longer (*Clivine*), the penultimate bisetose in front (*Clivine*) plurisetose (*Scarites*).” It is evident he only refers to the labial palps, but for all that the differences sought to be established cannot be maintained, for in his “group” *Clivinae* some Australian species (*e.g.*, *C. planiceps*, Putz.) have the penultimate joint of the labial palps evidently longer than the terminal, and in *Carenum* too the relative proportions of these joints varies.

oculaire" of Putzeys); a sulcus on inner side of each of the facial carinae (*facial sulcus*). Throat and temples normally rugulose; gular sutures wide apart; a short oblique ridge (*gular cicatrix*) extending inwards on each side of base of neck and dividing the gular and temporal regions. Prothorax and disc canaliculate, and normally with a transverse arcuate impression (*anterior line*) near anterior margin; a deep channel along each lateral margin, its course terminated before the posterior marginal puncture by a slight upward curve of the border at posterior angle. Body winged. Peduncle with a concavity on each side (normally punctate) to receive intermediate femora. Elytra normally with seven punctate striae and a lateral channel; third interstice with four foveiform punctures along course of third stria. Prosternum strongly bordered on anterior margin; the episterna normally overhanging on sides anteriorly—(the antennae pass under the overhanging part of the sides when in repose). Metasternal episterna—with epimera—normally elongate and narrowed posteriorly, rarely short. Ventral segments transversely sulcate. Intermediate tibiae with an acute spur on external side above apex, rarely at apex.

The features given above are normally present in Australian species of *Clivina*, therefore little, and often no use has been made of them in the descriptions which follow; but in all cases where any variation from the normal form has been observed it has been noted (except in the case of differences of the gular and temporal regions of the head, the gular sutures, the gular cicatrix and the anterior margin of the labrum), and where no allusion is made to any of the characters enumerated above in my descriptions of specimens before me, it is to be assumed that the form is normal.

The following characters seem to call for special notice, the more so because I have been compelled for the sake of descriptive exactness to adopt a new terminology for some features not hitherto used in diagnosing species of *Clivina*, and to vary some of the terms used by M. Putzeys for certain features.

The head is longitudinally impressed on each side, the anterior part of each of these impressions usually forming a wide and

irregular depression of variable depth (*frontal impressions*); the seta found on each side of the clypeus is situated in the frontal impression, often the puncture from which it rises is lost in the rugosity of the impression: from the frontal impressions the facial sulci extend backwards on each side of the face, and in some species (e.g., *C. obliquata*, Putz.) a short light internal impression extends from the anterior part of the facial sulcus obliquely inwards and backwards on each side of the face—the facial sulci may then be said to be *recurved* (this is a feature of evident classificatory importance). The clypeus is large, usually not divided from the front between the frontal impressions; when it is so divided it is by a wide usually irregular impression. It is necessary for descriptive purposes to divide the clypeus into three areas, viz.—(1) *The clypeal elevation* (“*élévation antérieure*” of Putzeys) being the raised part of the clypeus between the frontal impressions—(reference is usually made by me only to the shape of the anterior margin of the clypeal elevation); (2) *the median part* (“*epistome*” of Putzeys) being the central part of the clypeus in front of the clypeal elevation (usually I refer to the anterior margin only as the median part); (3) *the wings* (“*petites ailes*” of Putzeys) being the lateral parts of the clypeus (usually a finely marked suture is noticeable between the wings of the clypeus and the supra-antennal plates). The form of the anterior margin of the clypeus varies greatly, these variations being important for grouping the species; among the Australian species there are three well marked forms of the anterior margin of the clypeus, of one or other of which all different forms may be considered as merely modifications; these are:—

(a) The median part projecting on each side beyond the wings, in which case it is *angular*, the lateral angles being more or less marked (e.g., *C. angustula*, Putz.).

(b) The median part in no way separated from the wings along the anterior margin (e.g., *C. australasica*, Bohem.).

(c) The wings projecting strongly beyond the truncate median part (e.g., *C. procera*, Putz.).

The median part is often defined on each side from the wings by a ridge, more or less distinct (I have made but little use of this feature, though these ridges seem not without value for diagnostic purposes).

The supra-antennal plates ("grandes ailes" of Putzeys) are the "frontal plates" (Horn) of the head under which the antennæ are inserted.

The elytra have the striae at the base either (a) *all free*, or (b) *the four inner free*, the fifth uniting with the sixth, or (c) *the three inner free*, the fourth uniting with the fifth at the base. These variations are of great classificatory importance and seem to offer the most reliable means of grouping the species into primary divisions. The first stria of the elytra rises in an ocellate puncture at the base, and in some species, especially the larger ones, the first and second striae unite at the base; sometimes a short scutellar striole is very noticeable at the base of the first interstice (this is an important feature). The interstices vary, the eighth usually forming a narrow carina near the apex. A *submarginal humeral carina* is generally present at the humeral angles; when present it may vary in length and prominence and may be formed by the basal part of (a) the seventh interstice, (b) the eighth interstice, or (c) the seventh and eighth together. The position of the posterior puncture of the third interstice varies; but, though useful when comparing specimens, I have not used it in my descriptions.

The prosternum may be divided into the *pectoral part* and the *intercoxal part*: the point of union between these parts varying in width, five different degrees of width may be used; (a) *very wide* (*C. procera*, Putz, &c.), (b) *wide* (*C. lepida*, Putz., &c.), (c) *narrow* (*C. australasic*, Bohem., &c.), (d) *very narrow* (*C. obliquata*, Putz., &c.), (e) *attenuate* (*C. melanopyga*, Putz., &c.). The difference in width of the intercoxal part anteriorly is of high classificatory importance and of the greatest assistance in arranging the Australian species. The pectoral part is sometimes margined on each side posteriorly by a prominent border; these may be termed *the pectoral ridges* (vide *C. lepida*). The

base of the intercoxal part may be either transversely sulcate or not; this seems a useful feature for separating species.

The differences in the legs are of great classificatory importance, but need no special note beyond attention being drawn to the differences between the terms used by M. Putzeys in describing the digitation of the anterior tibiæ and those adopted by me. M. Putzeys disregarded the external apical projection and only made reference to the teeth on the outer side above the apex, while, in conformity with the usage of writers on the *Carenides*, I include the apical projection in counting the external teeth of the tibia.

I have made no use of the maxillæ; in all the species which I have examined the inner lobe has been found to be hooked and acute at the apex; this form I believe to be invariable among the Australian species of *Clivina*, but Dr. Horn's drawings* of the maxillæ of North American species show that sometimes the inner lobe is obtuse at the apex.

M. Putzeys reduced the genus *Ceratoglossa*, Macleay, to a synonym of his genus *Scolyptus*, and, as far as the Australian fauna is concerned, I would merge *Scolyptus* in *Clivina*. There is no doubt in my mind that the species placed by me in the "*procera* group," several of which M. Putzeys put in *Scolyptus*, are congeneric with *C. basalis*, Chaud., &c; *C. planiceps* (with allied species) might be thought to require a different genus from *C. basalis*, but, if so, other species (e.g., *C. frenchi*, Sl.) are equally deserving of separation from both *C. basalis* and *C. planiceps*. On the whole I think the only course is to place in the central genus *Clivina* all those Australian species which have been put in *Scolyptus*, at least till someone is prepared to give sound reasons for the generic separation of any of them from the other species of *Clivina*; this I am not, at present, prepared to do.

The first Australian *Clivina* to be described was *C. basalis* by M. de Chaudoir in 1843, and this remained the only species

* Trans. Am. Ent. Soc. ix. 1881, pl. v.

known till 1858, when Bohemann described *C. australasica* from Sydney. In 1862 M. Putzeys published his "Postscriptum," in which he described four new Australian species. It may be noted that of these four species, all founded on unique specimens, three, viz., *C. elegans*, *C. atrata*, and *C. suturalis*, never seem to have turned up again; as will be seen from my notes on them, I suspect a possibility of the identity of two of them with subsequently described and known species. In 1863 Sir William Macleay described two *Scaritides* from N.S. Wales as *Ceratoglossa foveiceps* and *C. rugiceps*; these are species of *Clivina*, but both have to be dropped out of the Australian list for reasons stated below. In 1866 Putzeys published a Revision of the Australian species of *Clivina*, including descriptions of thirteen new Australian species—these descriptions he afterwards embodied in the "Révision Générale." I do not think it will be easy, if indeed possible, ever to identify *C. juvenis*, *C. prominens*, and *C. verticalis*. In 1867 Putzeys published his "Révision Générale," describing four new Australian species; and also he received for description the whole of Count Castelnau's collection of *Clivinides*, among which he found fourteen species of *Clivina* from Australia to describe as new; of these I have been able to identify six. Between 1868 and 1873 Putzeys added three species to our list, all of which are known to me. After 1873 no more species of Australian *Clivina* were described till 1889, when the Rev. Thos. Blackburn described nine new species, and since that date he has described three additional species, bringing the number known from Australia up to fifty-two. I have now thirty-one to add, making a total of eighty-three species for Australia, a number which I expect to be largely augmented when the continent has been more carefully searched for these insects.

A few words on size and colour in reference to distinguishing species of the genus *Clivina* from one another will not be out of place. M. Putzeys seems to have regarded slight differences in size as of more than legitimate value in determining closely allied species, *vide* his descriptions of *C. juvenis*, *C. lepida* and *C. rubripes*, which are not decidedly differentiated among themselves or from

C. australasiae, by mere size, though it is made a point of the first importance in the original descriptions.*

Occasional dwarfed specimens of probably most species of *Clivina* occur, which are so much smaller than the average size of their species that if only two specimens, one small and the other of normal size, were placed in anyone's hands for description they would more likely be regarded as different species than as representatives of the same species. It is only when we have before us a large series of specimens from one locality that we realise the amount of variation in size, and therefore in appearance, which may occur in a species of *Clivina*. For instance, a specimen of *C. biplagiata* only 5·5 mm. in length is in my possession—7·75 mm. being the normal length of the species; and small specimens of some species, e.g., *C. adalaidae*, appear to the eye too narrow and light to be associated without hesitation with large specimens of the same species.

It appears to me that too much importance must not be attached to mere colour for distinguishing species; immature specimens are always more lightly coloured than those that are mature; and speaking as a practical collector I would call attention to the fact that several immature specimens will sometimes represent all those of a species taken at one time and place; in this way immature specimens may be considered as typical in colour of a species, and so confusion may arise. A good example of colour-differences in a single species is afforded by *C. scollata*, three specimens of which in my collection taken at the same time and place differ in colour as follows. One, showing the mature colour of the species, has the head and prothorax black, the elytra reddish testaceous with a black dorsal spot; the second has the head and prothorax testaceous-red, the elytra testaceous with the place of the dorsal spot a little obscured; the third has the upper surface wholly testaceous, the elytra being paler than the head and prothorax.

* For a note by M. Piochard de la Brulerie criticising M. Putzeys' work as an author of species, *vide* Ann. Soc. Ent. Fr., 1875, (3), v. p. 128.

I have divided the Australian species of *Clivina* into thirteen groups; a synoptical view of these groups is given in the table below. The groups are formed in an arbitrary way, and no doubt their number might advantageously be reduced had I a surer knowledge of the affinities of the species.

Table grouping the Australian species of Clivina.

- I. Elytra with striæ free at base. (Submarginal humeral carina wanting).
 - A. Facial sulci simple, clypeus emarginate; inter-coxal part of prosternum wide anteriorly.... *biplagiata* group.
 - AA. Facial sulci recurved, clypeus with median part angular; inter-coxal part of prosternum very narrow anteriorly..... *cribrosa* group.
- II. Elytra with four inner striæ free at base, fifth joining sixth at base. (Submarginal humeral carina normally present).
 - B. Mandibles short.
 - C. Clypeus with five triangular projections in front..... *coronata* group.
 - CC. Clypeus with median part more or less angular laterally..... *obliquata* group.
 - BB. Mandibles long, decussating.
 - D. Prothorax with border reaching base on each side..... *planiceps* group.
 - DD. Prothorax with border not reaching base *grandiceps* group.
- III. Elytra with three inner striæ free at base, fourth joining fifth at base. (Submarginal humeral carina usually well developed).
 - E. Clypeus with median part more or less distinctly divided from wings along anterior margin (usually more prominent than wings).
 - F. Anterior femora with posterior edge of lower side strongly dilatate in middle..... *punctaticeps* group.
 - FF. Anterior femora not greatly dilatate on lower side.
 - G. Head very wide across occiput, eyes not prominent.

- H. Size small; prothorax longer than broad, without anterior line..... *blackburni* group.
- HH. Size moderate; prothorax broader than long, anterior line present... *olliffi* group.
- GG. Eyes prominent.
- I. Prosternum with intercoxal part attenuate..... *heterogena* group.
- II. Prosternum with intercoxal part narrow..... *bovillæ* group.
- EE. Clypeus roundly emarginate, median part not divided from wings. *australasiæ* group.
- EEE. Clypeus deeply truncate-emarginate, wings strongly advanced; (size usually large) *procera* group.

Following M. Putzeys' example, I define each group as I come to it.

I begin the descriptions of species by treating of two species, viz., *C. attrata*, Putz., and *C. obliterated*, Sl., which I have felt unable to place in any of the thirteen groups into which I have arranged the species of *Clivina* found in Australia. *C. attrata* may not be an Australian species at all. *C. obliterated* seems a species of anomalous position, and, in view of its strong resemblance to *C. australasiæ*, Bohem., even of doubtful validity.

C. ATTRATA, Putzeys.

Mém. Liège, 1863, xviii. p 54; Stett. Ent. Zeit. 1866, xxvii. p. 36; Ann. Soc. Ent. Belg. x. 1866, p. 179.

“Nigra, antennis brunneis, palpis pedibusque dilutioribus. Mandibulæ latæ, breves. Antennæ longæ, crassiusculæ. Labium [labrum] bisinuatum. Clypeus emarginatus, alis prominentibus. Vertex 3-impressus denseque punctulatus. Oculi prominentes postice cupulati. Pronotum subquadratum, antice subangustatum, basi vix prolongata. Elytra elongata, basi truncata, punctato-striata, striis apice evanescentibus, punctis maxime distinctis. Femora antica subtus unidentata; tibiæ sulcatæ, extus unidigitatæ atque unidentatæ; intermediæ calcaratæ. Long. 11½, El. 6¼, lat. 3 mill.”

The above is M. Putzeys' original description, which he supplemented by a longer and more minute one in French, from which I take the salient features as follows:—*

The epistoma is widely emarginate, its angles are prominent and clearly separated from the wings which are rounded and a little more advanced. The eyes are very prominent; posteriorly they are enclosed in the lateral margins of the head. The impression which separates the head from the neck is hardly distinct, especially in the middle. The striæ of the elytra are rather weak, but their puncturation is very distinct; they are less strongly impressed towards the external margin and hardly perceptible at the apex. The sixth interstice unites very indistinctly with the marginal border above the shoulder; not one of the striæ touches the base. The anterior tibiæ have at the apex a rather short digitation and a large strongly marked tooth.

In his "Révision Générale" M. Putzeys forms a separate group (twenty-fifth) for *C. attrata*; and treats of it in the following terms: This species, unique up to the present, has so much resemblance to *C. australasiae*, that at first sight it might be taken for a mere variety. The tooth of the mentum is longer, attaining the height of the lateral lobes. The mandibles are very short, broad, less arcuate, less acute, only carinate at the base. The prothorax is much more convex, hardly narrowed in front, almost square, with the sides rounded and the anterior angles very declivous. The elytra are truncate at the base, the shoulders marked, the striæ wider and more deeply punctate. The fifth stria, and not the fourth touches the eighth interstice at the base. The central carina of the prosternum is rather strongly narrowed between the coxæ, shortly and lightly canaliculate; the apex is oval, deeply foveolate on the base.

* This revision being intended for the use of students in Australia, who often are unable to refer to the older (and scarce) literature of other countries, all M. Putzeys' species have been dealt with, and translations of his remarks (except Latin diagnoses) on all species that are unknown to the author have been given.

In regard to its habitat, the original description states that the author had seen only a single specimen which came from New Holland. The "Révision Générale" rather throws doubt upon this by saying that this insect, formerly received as coming from South America, appears rather to be Australian.

It may be noted that in his tabular view of the species of *Clivina* in his "Postscriptum," p. 32, M. Putzeys gives as a distinguishing character of *C. attrata*—eighth interstice not prolonged above the shoulder.

The species for which I propose the name of *C. obliterata*, is an anomalous one among Australian species. It so closely resembles *C. australasie*, Bohem., as to seem merely a variety of that species; but as five specimens are before me, all agreeing in the basal characters of their elytra, I have felt compelled to regard it as distinct, and to place it with *C. attrata*, Putz. It requires more study, and should it prove to be a "sport" of *C. australasie*, of which there seems a possibility, it is a remarkable fact that the striæ free at the base should be accompanied by the total obliteration of the submarginal humeral carina.

CLIVINA OBLITERATA, n.sp.

Facies as in *C. australasie*, only the elytra more truncate at base, with striæ free at base and submarginal humeral carina wanting; anterior tibiæ 3-dentate. Black, four posterior legs piceous. Only differing from *C. australasie* as follows:—Head more evenly narrowed before eyes, (the sinuosity between the supra-antennal plates and wings of clypeus nearly obsolete), clypeus less deeply emarginate, the wings narrower; elytra with shoulders more marked (though rounded), more declivous, lateral border very fine, marginal channel very narrow behind and at shoulders, interstices flatter, eighth more finely carinate on apical curve, striæ lighter especially towards sides, fourth free, fifth hardly joining sixth at base; external teeth of tibiæ a little weaker. Length 9·5, breadth 2·6 mm.

Hab.: N.S. Wales—Carrathool, Mulwala (Sloane); Victoria (Kershaw).

The anterior margin of the clypeus is exactly as in *C. australasiae*, emarginate with the wings not divided from the median part; the prosternum is exactly as in *C. australasiae*. Apart from its smaller size, and the form of the clypeus and anterior tibiae, this species seems to present a remarkable resemblance to *C. atrata*, Putz.

Biplagiata group.

Head wide, short, strongly and roundly angustate in front of eyes; clypeus deeply emarginate, median part not divided from wings. Elytra with striae free at base; submarginal humeral carina wanting. Prosternum with intercoxal part wide anteriorly, sulcate on base. Anterior femora wide, lower side rounded; tibiae 3-dentate.

CLIVINA BIPLAGIATA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 43; Ann. Soc. Ent. Belg. 1866, x. p. 191.

Robust, convex. Black, with a reddish spot on each elytron just before apical declivity; anterior legs piceous, four posterior legs piceous red. Head wide; a shallow punctulate depression between clypeus and front; vertex smooth; clypeus deeply emarginate, wings small, not divided from median part; eyes prominent. Prothorax about as broad as long (1.8×1.75 mm.), widely convex, decidedly narrowed anteriorly; anterior angles very obtuse; basal curve short, rounded. Elytra convex, ovate, truncate at base, abruptly and deeply declivous to peduncle; striae free at base, strongly punctate towards base, lighter and more finely punctate towards apex, seventh interrupted towards apex; interstices convex at base, depressed towards apex, eighth carinate on apical curve; submarginal humeral carina wanting. Prosternum with intercoxal part wide anteriorly, transversely sulcate on base; episterna finely transversely striolate. Anterior femora compressed, very wide, lower side rounded; anterior tibiae 3-dentate. Length 7.7-8, breadth 2 mm. (One specimen in my collection only 5.5 mm. in length).

Hab. : Queensland—Cape York (from Mr. French), Port Denison and Wide Bay (Masters); N.S. Wales—Sydney [common], Goulburn and Mulwala [rare] (Sloane); Victoria—Melbourne.

An isolated and easily identified species. The red subapical maculæ of the elytra vary in size and brightness; in one specimen from Sydney in my possession they are wanting, the elytra being entirely black. I have not found any perceptible punctures on the prothorax as mentioned by Putzeys.

Cribrosa group.

Size moderate. Head short, wide and convex on occiput; clypeus with median part angular; facial sulci recurved; eyes depressed. Prothorax short, parallel; anterior angles marked. Elytra with five inner striae free at base; submarginal humeral carina wanting. Prosternum with intercoxal part very narrow anteriorly, sulcate on base. Anterior tibiæ strongly 4-dentate.

The species known to me may be divided into sections thus:—

- | | | |
|---|---|---|
| I. Clypeus with angles of median part obtuse | { | <i>C. cribrosa</i> Putz.
<i>C. boops</i> , Blkb.
<i>C. fortis</i> , Sl. |
| II. Clypeus with angles of median part prominent,
dentiform..... | | <i>C. frenchi</i> , Sl. |

CLIVINA CRIBROSA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 20.

Robust, cylindrical, parallel. Head large, convex, coarsely punctate, eyes depressed; prothorax short, not narrowed anteriorly, anterior angles marked; elytra truncate on base, shoulders marked, striae not deep, punctate, free at base; anterior tibiæ 4-dentate. Black (or piceous), legs reddish.

Head very convex, wide at base, sloping from vertex to anterior margin; vertex and occiput coarsely punctate, the punctures extending to middle of front: clypeus short; median part truncate (obsoletely emarginate between angles), angles prominent, short, triangular; wings wide, short, external angles wide, obtuse,

marked; a well marked sinuosity between wings and supra-antennal plates, these wide, rounded externally; frontal impressions wide, shallow, hardly marked; facial sulci hardly marked, recurved part well marked; facial carinæ distant from eyes, straight, carinate; eyes not enclosed behind. Prothorax broader than long (1.3×1.4 mm.), very declivous to base; upper surface, excepting basal declivity, densely and strongly rugulose-punctate; sides parallel; anterior margin truncate; anterior angles marked, very lightly advanced; posterior angles rounded; median and anterior lines distinctly marked; lateral basal impressions obsolete. Elytra a little wider than prothorax (3.2×1.5 mm.); base truncate, deeply and abruptly declivous to peduncle; apex widely rounded; striæ shallow, strongly punctate, entire, weaker near apex, seventh weak, obsolete on apical curve; marginal channel shallow in middle. Prosternum with intercoxal part very narrow anteriorly, sulcate on base; episterna overhanging anteriorly, very finely striolate near lateral margins. Anterior tibiæ wide, 4-dentate; intermediate tibiæ with external spur distant from apex, long, erect, acute.

Length 6.6.5, breadth 1.5 mm.

Hab.: West Australia—King George's Sound (Masters), Beverley (Lea).

It greatly resembles *C. boops*, Blkb., some differences being its smaller size, lighter form, the whole of the disc of the prothorax strongly punctate, and the less strongly impressed elytral striæ. The description given above is founded on specimens sent to me by Mr. Masters; their colour is coal black; a specimen sent by Mr. Lea is piceous; Putzeys gives the colour, as piceous.

Note.—It is evident that Putzeys' measurements are incorrect; the species is rather a stoutly built little one, and, even in the most narrow species of *Clivina*, such a shape for the elytra as " $4\frac{1}{2} \times 1\frac{1}{2}$ mm." would be unheard of.

CLIVINA BOOPS, Blackburn.

P.L.S.N.S.W. 1889 (2), iv. p. 719.

Very closely allied to *C. cribrosa*, Putz., which it exactly resembles as to the head, shape of prothorax, elytra, legs, &c.; for

some apparent differences between them see description of *C. cribrosa* (*ante*, p. 157).

These species require careful study with large series of fresh specimens from different localities.

The dimensions of a specimen sent to me by Mr. Blackburn are: length 7; head 1.2×1.4 ; proth. 1.6×1.75 ; el. 4×1.9 mm.

Hab.: South Australia—Adelaide, Port Lincoln (Blackburn); Victoria—Melbourne (Kershaw).

CLIVINA FORTIS, n.sp.

Robust, cylindrical. Head punctate, large, wide and convex posteriorly, declivous in front, facial sulci recurved; prothorax broader than long, not narrowed anteriorly, striolate-punctate towards sides; elytra with striæ free at base; prosternum with intercoxal part very narrow anteriorly, sulcate on base; episterna hardly rugulose, very finely transversely striolate; anterior tibiæ 4-dentate. Black.

Head large, finely punctate on base of clypeus and middle of front; vertex and occiput very convex, not punctate; a wide shallow impression between clypeus and front: clypeus deeply declivous and rugose to median part, this narrow, strongly emarginate, its angles not marked; wings small, anterior margin sloping roundly and very lightly backwards from median part; supra-antennal plates rounded, bordered, divided from wings of clypeus by a light sinuosity, a submarginal ridge extending backwards from this sinuosity; facial sulci lightly impressed, recurved part elongate and very distinct; facial carina short, strong; eyes very depressed. Prothorax transverse (1.75×1.9 mm.), widely convex, strongly declivous to base, smooth anteriorly, rugose-punctate towards sides of disc; sides parallel; anterior angles obtuse, but marked; posterior angles rounded; basal curve short; border narrow; median line strongly impressed; anterior line very lightly impressed. Elytra wider than prothorax (4.2×2.2 mm.), convex, parallel, truncate and abrupt at base, widely rounded at apex; striæ lightly impressed,

entire, finely punctate; interstices lightly convex, eighth narrow (not carinate) on apical curve. Intermediate tibiæ wide, incrassate, about three small projections above external spur.

Length 7·8, breadth 2·2 mm.

Hab. : N.S. Wales (unique in Rev. T. Blackburn's Collection).

This species is closely allied to *C. boops*, Blkb., from which its most conspicuous differences are its larger size, more depressed eyes, and the obtuse anterior angles of the prothorax.

Note.—A specimen sent to me for examination by Mr. Masters, and ticketed Tasmania, only differs from the above in having the fine punctures of the head spread over all the posterior part; and the strong puncturation of the prothorax over nearly the whole of the disc, the angles of the median part of the clypeus a little marked, and the anterior angles of prothorax more prominent; I do not feel quite sure that it is conspecific with *C. fortis*, but am unable to regard it as distinct.

CLIVINA FRENCHI, n.sp.

Parallel, cylindrical. Head large, facial sulci recurved; prothorax broader than long, not narrowed in front; elytra with five inner striæ free at base, submarginal humeral carina obsolete; anterior tibiæ 4-dentate. Head, prothorax, and legs piceous (four posterior legs more lightly coloured than anterior); elytra brown.

Head large (1·7 × 1·8 mm.), wide behind eyes, convex, on upper surface a shallow puncturation, except on posterior part of vertex: clypeus not divided from front; median part truncate, its angles forming a strong triangular projection; wings about as prominent towards sides as the angles of median part, defined posteriorly by an oblique line, external angles rounded; lateral setigerous punctures large, placed behind angles of median part a little in front of the line defining the wings behind; supra-antennal plates large, projecting decidedly beyond wings of clypeus; facial sulci not clearly marked, turning inwards in front, an ill-defined short impression extending obliquely inwards and backwards from their anterior part on each side of vertex; facial carinæ short; eyes deeply

embedded, hardly more prominent than supra-antennal plates; sides of head behind eyes finely and densely rugose-punctate; gulae hardly rugulose. Mandibles short, flat. Mentum deeply and obliquely emarginate; lobes rounded at apex; median tooth broad, long, triangular. Prothorax a little broader than long (2.1×2.25 mm.), not narrowed anteriorly, convex, transversely striolate towards sides; anterior margin truncate; anterior angles lightly advanced; posterior angles rounded; basal curve short; border narrow; median line well marked, linear; anterior line variable (sometimes well marked, sometimes obsolete); lateral basal impressions usually well marked, elongate (reaching beyond middle of prothorax), rugulose. Elytra convex, a little wider than prothorax (5×2.5 mm.), parallel on sides, truncate at base, widely rounded at apex; striae punctate for whole length, more lightly impressed towards apex; interstices lightly convex towards base, eighth not carinate at base, distinct and wide (not carinate) on apical curve. Prosternum with intercoxal part attenuate anteriorly, transversely sulcate on base; episterna minutely shagreened, with fine wavy transverse striolae. Ventral segments smooth. Anterior femora short, wide; anterior tibiae 4-dentate, the upper tooth prominent, triangular; intermediate tibiae with external spur long, acute.

Length 7.6-9, breadth 2.2-5 mm.

Hab.: North Queensland (from Mr. French); S. Australia—Lake Callabonna (Zietz).

The specimen of which the measurements are given in the description is 9 mm. in length.

Coronata group.

Size small. Head depressed; eyes not prominent; clypeus with five triangular projections along anterior margin; supra-antennal plates also triangular in front. Elytra with four inner striae free, fifth joining sixth at base. Prosternum with intercoxal part attenuate anteriorly. Anterior tibiae 4-dentate.

CLIVINA CORONATA, Putzeys.

Ann. Soc. Ent. Belg. xvi. 1873, p. 17.

Narrow, cylindrical. Clypeus with five prominent projections in front; prothorax parallel on sides; elytra parallel on sides, fifth stria joining sixth at base; prosternum with intercoxal part attenuate anteriorly; anterior tibiæ strongly 4-dentate. Testaceous, elytra more lightly coloured than head and prothorax.

Head depressed, lightly impressed, finely punctulate; frontal foveæ nearly obsolete; facial sulci obsolete, forming a wide shallow depression on each side of vertex; facial carinæ distant from eyes, feebly developed; supra antennal plates large, overshadowing the eyes at base, obtusely pointed in front; eyes not prominent. Prothorax rather longer than broad (1.25 × 1.2 mm.), finely striolate near sides, lateral basal impressions elongate. Elytra hardly wider than prothorax (2.7 mm. × 1.25 mm.), punctate-striate; striæ entire; interstices lightly convex, eighth marked on apical curve; submarginal humeral carina very fine and weakly developed. Prosternum with episterna minutely shagreened, not transversely striolate. Anterior femora wide, with lower edge rounded.

Length 5.2, breadth 1.25 mm.

Hab. : West Australia—King George's Sound (Masters).

This species is readily distinguished by the form of the anterior margin of the head with seven triangular projections. I have not found any perceptible punctures on the sides of the prothorax as mentioned by Putzeys. I have not been able to observe the base of the prosternum with accuracy in my specimen, so cannot say if it is transversely sulcate or not.

Obliquata group.

Size moderate or small. Front punctate, clypeus with angles of median part marked; facial sulci more or less recurved. Mandibles short. Elytra with four inner striæ free, fifth joining sixth at base; submarginal humeral carina present, not strongly developed. Prosternum with intercoxal part very narrow or

attenuate anteriorly, sulcate on base. Anterior tibiæ 4-dentate (the upper tooth sometimes feebly indicated or obsolete).

Table of Species.

I. Elytra punctate-striate.

A. Unicolorous.

B. Dorsal surface depressed.

C. Prothorax as long as, or longer than broad.

D. Size medium, fourth stria of elytra outturned at base.....*C. obliquata*, Putz.

DD. Size small, fourth stria of elytra not outturned at base*C. debilis*, Blkb.

CC. Prothorax broader than long (none of the elytral striæ outturned at base)*C. rivicrina*, Sl.

BB. Form cylindrical.

E. Anterior tibiæ 3-dentate, interstices of elytra convex*C. cylindriciformis*, Sl.

EE. Anterior tibiæ 4-dentate, interstices of elytra depressed.....*C. obsoleta*, Sl.

AA. Bicolorous.

F. Elytra with basal part red, apical black ...*C. melanopyga*, Putz.

FF. Elytra reddish with a black sutural vitta *C. dorsalis*, Blkb.

FFF. Elytra entirely ferruginous red*C. bicolor*, Sl.

II. Elytra with striæ simple*C. denticollis*, Sl.

The members of this group which I do not know are *C. wildi*, Blkb., evidently coming near *C. debilis*; *C. eremicola*, Blkb., allied to *C. obliquata*; and *C. adeluidæ*, Blkb.

CLIVINA OBLIQUATA, Putzeys.

Ann. Soc. Ent. Belg. 1866, x. p. 188; and 1868, xi. p. 16.

Parallel, rather depressed. Head widely convex, eyes not prominent, front lightly punctate; facial sulci recurved; prothorax depressed, parallel, not perceptibly narrowed anteriorly; elytra parallel, punctate-striate; fourth stria outturned, but not joining

fifth at base; interstices lightly convex on basal part of disc, depressed posteriorly, eighth narrowly carinate at apex; submarginal humeral carina short, feebly carinate. Prosternum with intercoxal part small, very narrow anteriorly, sulcate on base; episterna minutely shagreened, the transverse striole hardly perceptible. Anterior femora wide, lower side rounded; tibiae 4 dentate.

Head rather small; frontal impressions wide, well marked; clypeal elevation raised and prominent; clypeus divided from front by a shallow punctulate impression, depressed near anterior margin; median part emarginate-truncate, its angles hardly advanced beyond wings, hardly marked; wings truncate, external angles marked, obtuse; supra-antennal plates large, projecting strongly and sharply beyond wings of clypeus, rounded and margined laterally; eyes lightly convex, not prominent, strongly enclosed behind. Prothorax rather longer than broad (1.75×1.7 mm.); sides widely and very feebly sinuate behind anterior angles; anterior margin truncate, anterior angles marked, obtuse. Elytra elongate, very little wider than prothorax (3.8×1.75 mm.); four inner striae strongly impressed, fifth and sixth strongly impressed near base, becoming obsolete after anterior third, seventh entire, distinctly impressed; posterior puncture of third interstice near apex.

Length 7, breadth 1.75 mm.

Hab.: South Australia—Port Lincoln (Coll. Castelnau). (Two specimens were sent to me by Mr. Masters, ticketed South Australia.)

It appears probable that the identification of *C. obliquata* has been rendered difficult by a certain vagueness in Putzeys' description, *e.g.*, when he says that *C. obliquata* may be distinguished at the first glance by its long, narrow and almost cylindrical elytra; this probably should be read as comparative to *C. melanopyga*, Putz.; the only other member of the group in which he placed *C. obliquata*, known to him, and of which he says the elytra are *elongate, almost cylindrical* (though, being a more than usually depressed species, I should not call them so); again,

though he places *C. obliquata* in a group characterised by the fifth stria, not the fourth, reaching the eighth interstice, he says, in the description, that the fourth *unites more or less distinctly with the eighth at the base*; in *C. obliquata* it turns out at the base, but does not actually join the fifth.

CLIVINA DEBILIS, Blackburn.

P.L.S.N.S.W. 1889 (2), iv. p. 722.

Black, legs testaceous. Narrow, elongate, subdepressed. Clypeus with median part truncate, hardly distinct from wings, its angles very weak; wings truncate, external angles squarely obtuse; supra-antennal plates projecting strongly beyond wings of clypeus. Prothorax quadrate (1.2 × 1.1 mm.). Elytra parallel (2.8 × 1.3 mm.); fifth stria joining sixth at base, seventh well marked in all its course. Prosternum with intercoxal part very narrow anteriorly, transversely sulcate on base. Anterior tibiae narrow, 3-dentate (only an obsolete trace of an upper prominence).

Length 5, breadth 1.3 mm.

Hab. : South Australia—Adelaide, Port Lincoln (Blackburn).

Closely allied to *C. obliquata*, Putz., from which its small size will at once distinguish it. The description above is founded on a specimen for which I am indebted to Rev. T. Blackburn.

A specimen brought from Lake Callabonna (Central Australia) by Mr. A. Zietz, in 1893, differs slightly, being a little larger (5.3 × 1.4 mm.), and having the prothorax with longer sides (basal curve short), (1.4 × 1.2 mm.), the disc punctate near the sides; the angles of the median part of the clypeus more prominent, the "wings" more angulate, &c. It may be a different, but closely allied species; to study it satisfactorily several specimens would be necessary.

CLIVINA RIVERINÆ, n.sp.

Wide, parallel, very depressed. Prothorax quadrate; elytra punctate-striate, four inner striae free at base; prosternum with intercoxal part very narrow anteriorly, transversely sulcate on base; anterior tibiae 3-dentate. Black, shining, legs piceous.

Head large (1.4×1.5 mm.), anterior part depressed; vertex wide, lightly convex, more or less punctate; clypeus declivous, divided from front by a wide—usually punctulate—depression; median part bordered, wide, lightly emarginate-truncate, its angles projecting obtusely beyond wings; these small, almost square, with external angle obtuse; supra-antennal plates large, bordered, projecting strongly and squarely beyond wings of clypeus, anterior angle obtuse, but marked; facial sulci deep, recurved part obsolete (sometimes feebly indicated); facial carinae strong; eyes convex, rather prominent, lightly enclosed behind. Mentum wide, deeply and obliquely emarginate; lobes widely rounded at apex; median tooth triangular, acute. Prothorax depressed, quadrate (2×2.1 mm.), widest behind middle, very shortly declivous to base, a little narrowed anteriorly (ant. width 1.9 mm.); sides very lightly rounded; posterior angles rounded, not marked; basal curve short; anterior margin truncate; anterior angles wide, obtuse, a little prominent; border narrow; median and anterior lines strongly impressed; lateral basal impressions obsolete, or very lightly marked. Elytra depressed, hardly wider than prothorax (4.5×2.2 mm.), parallel, widely rounded at apex, truncate at base; striae punctate, weaker towards apex, fifth and sixth obsolete except near base, seventh lightly marked, not punctate; eighth interstice narrow, subcarinate on apical curve; border narrow. Prosternum not protuberant; episterna finely shagreened, marked with wavy transverse lines. Anterior femora short, wide; anterior tibiae strongly 3-dentate, a small triangular prominence above the upper tooth.

Length 7.2-8.6, breadth 2.2-7 mm.

Hab.: Victoria—Swan Hill (C. French); N.S. Wales—Urana District (Sloane—moderately plentiful on the edges of a large marsh 20 miles N.E. from Urana.)

Allied to *C. obliquata*, Putz., which it greatly resembles; it is a broader and more depressed species (being the most depressed Australian species), the prothorax is more transverse, being broader than long, and less parallel on the sides. The sub-marginal humeral carina of the elytra is very short and hardly

carinate—it might be described as nearly obsolete. The specimen (δ) from which the measurements used in the description were taken was 8.4 mm. in length.

CLIVINA CYLINDRIFORMIS, n sp.

Narrow, cylindrical. Head with recurved facial sulci; prothorax as long as broad, longitudinally convex; elytra strongly punctate-striate, fourth stria free, lightly outturned at base, fifth joining sixth at base; prosternum with intercoxal part very narrow anteriorly; anterior tibiae 3-dentate. Head, prothorax, and under surface of body piceous black; elytra piceous brown (piceous black near suture at beginning of apical declivity); under surface of prothorax piceous red; legs ferruginous.

Head convex (1.1 \times 1.3 mm.); clypeus divided from front by a wide punctate impression, an elongate punctate depression in middle of front extending backwards from this impression; sides of head punctate behind eyes, the puncturation strong on each side above base of facial carinae; median part of clypeus emarginate-truncate, bordered, its angles widely obtuse, hardly projecting beyond wings; these small, subrotundate in front with external margin widely rounded (their margin extends in a slightly uneven curve from median part to supra-antennal plates); supra-antennal plates large, explanate towards margin, projecting strongly and sharply beyond wings of clypeus, rounded on external margin; facial sulci strongly impressed, a short impression extending backwards from their anterior part on each side of vertex; facial carinae strong, elongate; eyes convex, rather prominent, lightly enclosed behind; gulae lightly striate on anterior part. Prothorax levigate, convex, as long as broad (1.8 \times 1.8 mm.), widest a little before the posterior angles, lightly narrowed anteriorly (ant. width 1.6 mm.); sides very lightly rounded; posterior angles not marked; basal curve rounded; anterior margin truncate; anterior angles subprominent, obtuse; border narrow on sides; median line linear, deep; anterior line obsolete; lateral basal impressions lightly marked. Elytra hardly wider than prothorax (4 \times 1.9 mm.), very convex, sides lightly rounded; base roundly truncate; seventh

stria not interrupted towards apex; interstices convex, eighth narrow and distinct on apical curve; submarginal humeral carina short and feebly developed; lateral border narrow. Prosternum not protuberant, transversely sulcate on base; episterna minutely shagreened, not transversely striolate. Anterior femora short, wide; lower side canaliculate, with posterior edge rounded.

Length 7, breadth 1·9 mm.

Hab. : Queensland—Gulf of Carpentaria (one specimen sent to me by Mr. C. French).

Differs from *C. obliquata*, Putz., in colour, facies, and the 3-dentate anterior tibiæ.

CLIVINA OBSOLETA, n.sp.

Narrow, cylindrical. Head wide; facial sulci obsolete; clypeus with angles of median part projecting beyond the wings; eyes not prominent; prothorax about as long as wide, very lightly narrowed anteriorly; elytra parallel, fifth stria joining sixth at base; prosternum with intercoxal part attenuate anteriorly; anterior tibiæ strongly 4-dentate. Ferruginous, elytra a little more lightly coloured than head and prothorax.

Head wide between eyes and across occiput; front finely, not densely, punctate; vertex finely punctate on each side behind facial carinæ: clypeal elevation truncate; median part of clypeus depressed, defined on each side by a carinate ridge, truncate, its angles projecting decidedly beyond wings in the form of obtuse triangular teeth; wings small, concave, quadrate, external angle marked; supra-antennal plates projecting beyond and divided from clypeal wings by a sharp sinuosity; facial carinæ short, weakly developed; eyes convex, not prominent, hardly at all enclosed behind. Prothorax convex, smooth (except for a few transverse striolæ); anterior margin truncate; anterior angles obtuse, feebly indicated; posterior angles widely rounded; basal curve short; lateral basal impressions short, lightly impressed; median line well marked; anterior line hardly marked. Elytra long, parallel (3·3 × 1·5 mm.), truncate and strongly declivous at base, widely rounded at apex, very declivous to sides and apex; striæ

lightly impressed, entire, finely punctate; interstices not convex, eighth narrow near apex; submarginal humeral carina short, narrow, weak. Prosternum with episterna minutely shagreened. Anterior femora wide, lower side rounded; anterior tibiae widely palmate, upper internal spine thick, curved, incrassate.

Length 6, breadth 1.5 mm.

Hab.: Queensland—Cape York (unique in the collection of the Rev. T. Blackburn).

This is an isolated species; in general appearance it is rather like *C. blackburni*, Sl., but its nearest ally known to me seems to be *C. frenchi*, Sl., which it resembles in its widely palmate tibiae; in *C. frenchi* the upper internal spine of the anterior tibiae is greatly developed, though not so thick as in *C. obsoleta*. I have placed it in the "*obliquata* group," because it has the elytra with the fifth stria joining the sixth at base, and has a submarginal carina at each shoulder.

CLIVINA MELANOPYGA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 41; Ann. Soc. Ent. Belg. x. 1866, p. 187.

This species is at once distinguished from all other Australian species by its colour, its rather depressed form, and by having the four inner striae of the elytra free at the base. The following brief note will sufficiently characterise it.

Head, prothorax, undersurface and apical part of elytra black; elytra reddish on more than anterior half; legs piceous. Head, including clypeus, as in *C. obliquata*, Putz., prothorax quadrate (1.5 × 1.5 mm.): elytra depressed on disc (3 × 1.5 mm.), punctate-striate; four inner striae free, fifth joining sixth at base; submarginal humeral carina short, weakly developed; prosternum with intercoxal part attenuate anteriorly; anterior tibiae 3-dentate, a fourth upper tooth feebly indicated.

Length 5.6-6.5, breadth 1.5-1.8 mm.

Hab.: N.S. Wales—Urana District (Sloane—one specimen); Victoria—Swan Hill (French), Melbourne (Kershaw); South Australia.

CLIVINA DORSALIS, Blackburn.

P.L.S.N.S.W. 1889 (2), iv. p. 719.

Parallel, lightly convex. Black; elytra red with a black sutural stripe (this stripe occupying only first interstice at base, widening posteriorly and extending over three inner interstices, not reaching apex); anterior legs ferruginous, four posterior testaceous. Front punctate; clypeus with median part lightly emarginate-truncate, its angles hardly marked, its wings small with anterior margin truncate, their exterior angles obtuse but marked; facial sulci recurved. Prothorax quadrate (1.2×1.2 mm.), evenly and lightly convex, punctulate. Elytra a little broader than prothorax (2.5×1.35 mm.), widely rounded at apex, evenly and lightly convex; striæ strongly impressed, entire, punctate, fifth joining sixth at base. Prosternum with intercoxal part attenuate anteriorly, transversely sulcate on base; episterna minutely shagreened, obsolete transversely striolate. Anterior tibiae 4-dentate, the upper tooth very feeble.

Length 5, breadth 1.35 mm.

Hab. : Victoria (Kershaw); South Australia—Adelaide, Port Lincoln (Blackburn); West Australia—King George's Sound (Masters), Beverley (Lea).

This species agrees with M. Putzeys' original description of *C. suturalis* in every particular, except that from the group in which he placed *C. suturalis* it should have the fourth stria joining the fifth at the base, but he placed *C. planiceps* in the same group as also having the fourth stria joining the fifth at the base, which was incorrect, and it is impossible for me to avoid a suspicion that *C. dorsalis*, Blkb., = *C. suturalis*, Putz. If so, Putzeys' description is erroneous, and nothing but an inspection of his type, or the discovery of a species coloured like *C. dorsalis*, and having the fourth and fifth striæ of the elytra confluent at the base, can now settle the point.*

* See descriptions of *C. suturalis* and *C. verticalis* (*post*) for further remarks on this subject.

CLIVINA BICOLOR, n.sp.

Narrow, parallel, subdepressed. Head short, convex, facial sulci recurved, eyes not prominent: prothorax longer than broad, parallel on sides; upper surface densely and strongly punctate: elytra parallel, finely punctate-striate; four inner striae free, fifth joining sixth at base; interstices depressed, eighth carinate at apex, and shoulders; anterior tibiae 4-dentate. Elytra ferruginous-red; prothorax and head piceous, under surface piceous.

Head convex and smooth on vertex, a few fine punctures on anterior part of front: clypeus with median part truncate, its angles prominent, triangular; wings wide, subquadrate, hardly as advanced as angles of median part, external angles strongly marked, obtuse at summit, external margin straight; supra-antennal plates large, projecting sharply and strongly beyond wings of clypeus; facial carinae hardly marked; eyes convex, not at all prominent, weakly enclosed behind. Prothorax longer than broad (1.2 × 1.1 mm.), lightly convex, lightly declivous to base; upper surface—excepting basal declivity and anterior collar—strongly punctate; sides parallel, a little narrowed at anterior angles; anterior margin truncate; anterior angles marked; lateral basal impressions lightly marked, elongate. Elytra very little wider than prothorax (2.5 × 1.25 mm.); sides subparallel (hardly rounded), a little narrowed to base; shoulders obtuse, but marked; base lightly emarginate behind peduncle; striae entire, lightly impressed, finely punctate, seventh entire; interstices depressed; submarginal humeral carina long, narrow. Prosternum with intercoxal part cordate, narrow anteriorly; episterna sublævigata (very minutely shagreened).

Length 4.7, breadth 1.25 mm.

Hab.: West Australia—King George's Sound (unique, sent by Mr. Masters).

Allied to *C. dorsalis*, Blkb., from which its colour and the prothorax with the whole of the disc punctate at once distinguish it; the angles of both the median part and the wings of the clypeus are far more prominent than in *C. dorsalis*.

CLIVINA DENTICOLLIS, n.sp.

Robust, lightly convex. Head depressed, transversely impressed posteriorly, eyes very large and convex; prothorax subquadrate; posterior angles marked, shortly dentate; elytra parallel, simply striate; four inner striae free at base; a well marked striole at base of first interstice; submarginal humeral carina wanting; prosternum with intercoxal part canaliculate, wide anteriorly, transversely sulcate on base; episterna very finely transversely striolate, not overhanging in front; lateral cavities of peduncle punctulate; anterior tibiae strongly 3-dentate; intermediate tibiae not wide, external spur stout, acute, very near apex. Ferruginous, eyes black.

Head depressed, widely impressed across occiput; front depressed, rugulose; frontal impressions very shallow; facial sulci wide, shallow, nearly obsolete; vertex smooth, minutely punctulate; facial carinae wide, short, lightly raised; clypeus with median part truncate, its angles small, obtuse, very lightly advanced; wings small, concave (less advanced than median part), external angles rounded; supra-antennal plates rather depressed, rounded externally, a strong sinuosity dividing them from clypeus wings; eyes very large, convex, prominent, projecting far beyond supra-antennal plates; gulae smoother than usual, lightly punctate near eyes. Labial palpi stout, terminal joint stout, subfusiform (obtuse at apex). Prothorax broader than long (1.3 × 1.4 mm.), lightly and evenly convex; disc covered with fine transverse striolae; anterior margin truncate, vertical at sides of neck; anterior angles obtuse; sides evenly rounded; posterior angles marked by a short but decided dentiform projection; basal curve short; border narrow, lightly reflexed on sides, very fine (not reflexed) on sides of basal curve; median and anterior lines strongly impressed; lateral basal impressions wanting. Elytra much wider than prothorax (3.3 × 1.8 mm.), lightly rounded on sides, widely rounded at apex; base truncate; striae simple, entire, lightly impressed, fifth joining sixth at base, seventh entire; interstices

depressed, eighth hardly carinate on apical curve. Anterior femora not channelled below, lower side not dilatate or rounded.

Length 6, breadth 1·8 mm.

Hab. : West Australia—N. W. Coast (?); (sent to me by Mr. C. French).

A remarkable and isolated species, not nearly allied to any other Australian species. In facies it resembles *C. pectoralis*, Putz.; its head is much like that of *C. bovillæ*, Blkb., but the eyes are larger; the form of the clypeus is like that of the species of the "*obliquata* group"; the intercoxal part of the prosternum is as wide as in typical members of the "*australusie* group." Although I have placed it in the "*obliquata* group," it might well be regarded as the type of a new group, of which the characters would be those of the preliminary paragraph of the description above.

Planiceps group.

Size large. Mandibles long, decussating. Clypeus with median part truncate; wings wide, truncate, sharply advanced. Labrum truncate, 5-setose. Labial palpi with penultimate joint slender, longer than terminal. Elytra with four inner striæ free at base, fifth joining sixth; submarginal humeral carina present. Prosternum with intercoxal part very wide anteriorly, non-sulcate on base.

Table of species.

A. Anterior tibiæ 3-dentate	<i>C. planiceps</i> , Putz.
AA. Anterior tibiæ 4-dentate	
B. Head rugulose	<i>C. quadratifrons</i> , Sl
BB. Head smooth	<i>C. carpentaria</i> , Sl.
<i>C. crassicollis</i> , Putz., allied to <i>C. planiceps</i> , is unknown to me.	

CLIVINA PLANICEPS, Putzeys.

Mém. Liège, 1863, xviii. p. 42; *Ceratoglossa rugiceps*, Macl., Trans. Ent. Soc. N.S.W. 1863, i. p. 72; *Scolyptus planiceps*, Putz., Ann. Soc. Ent. Belg. 1866, x. p. 24.

A well-known species, which may be distinguished by the following note:—

Cylindrical. Black, under surface piceous, legs reddish or reddish piceous. Head large ($2\cdot3 \times 2\cdot3$ mm.), depressed, rugulose; clypeus with wings strongly and obliquely advanced beyond the truncate median part. Prothorax longer than broad ($3\cdot5 \times 3\cdot3$ mm.), lightly narrowed anteriorly (ant. width 3 mm.). Elytra parallel ($7\cdot6 \times 3\cdot5$ mm.), crenulate-striate; four inner striae free at base, fourth a little outturned at base, fifth joining sixth at base; eighth interstice distinct on apical curve; a submarginal carina at shoulders. Anterior tibiae 3-dentate.

Length 12·5-16·5, breadth 3·4 mm.

Hab.: N.S. Wales—Murray and Murrumbidgee Rivers.

M. Putzeys in his "Postscriptum" places this species in a group characterised by having the fourth and fifth striae confluent at base; he makes no reference to this feature in his description, nor does he remark on it in *Stett. Ent. Zeit.*, nor in his "Révision Générale," where he merely puts it in *Scolyptus*, and places *Ceratoglossus rugiceps*, Macl., as a synonym without comment. Rarely the fourth interstice does turn outwards at the base, and actually join the fifth; one such example is in my collection from Mulwala on the Murray, where this species is very common.

CLIVINA CRASSICOLLIS, Putzeys.

Scolyptus crassicollis, Putz., *Ann. Soc. Ent. Belg.* 1866, x. p. 25.

The following is a translation of Putzeys' whole description (*sic*) of this species:—

Larger than *C. planiceps*; its elytra are proportionately more elongate; the prothorax is very noticeably more convex, more declivous particularly towards the anterior angles; the anterior margin is less emarginate.

Length 18, el. 9, breadth 4 mm.

New South Wales—two specimens.

The above is an example of the uselessness of some of M. Putzeys' descriptions; it might be founded on the large specimens

from the Gulf of Carpentaria mentioned below under *C. quadratifrons*, Sl.; but, if so, the description does not aid one in determining it, besides the inference is that the anterior tibiae are 3-dentate as in *C. planiceps*.

CLIVINA *QUADRATIFRONS*, n.sp.

Robust, parallel, cylindrical. Head flat, rugulose; prothorax about as long as broad; elytra with fifth stria joining sixth at base, eighth interstice distinctly marked on apical curve, a well-developed submarginal carina at shoulders; anterior tibiae 4-dentate. Black, under surface piceous, anterior legs reddish piceous, four posterior legs and antennae testaceous brown.

Head quadrate (2×2.1 mm.), flat, rugulose; clypeus not divided from front; median part truncate; wings divided from supra-antennal plates by a light linear impression, lightly and obliquely advanced beyond median part, wide, truncate, external angle marked, rounded; supra-antennal plates depressed, declivous before eyes, divided from clypeal wing by a light sinuosity, external margin sinuate; facial sulci lost in facial rugulosity; facial carinae distant from eyes, feebly developed; eyes convex, prominent; orbits narrow, abruptly truncate behind eyes. Mandibles wide at base, decussating. Mentum concave: lobes rounded at apex, lightly longitudinally striate; median tooth large, rounded at apex. Prothorax of almost equal length and breadth (3.6×3.5 mm.), parallel on sides, very little narrowed to apex, convex, roundly declivous to base; anterior margin truncate; anterior angles obtuse; posterior angles not marked; border wide and explanate near anterior angles, narrow backwards, not interrupted at posterior angles; median and anterior lines well marked; lateral basal impressions short, shallow, subfoveiform. Elytra parallel, cylindrical (8.5×4 mm.), truncate on base; striae entire, lightly crenulate, deeply impressed, becoming shallow towards apex, first outturned to join second at base, fourth free at base; interstices lightly convex, eighth forming a narrow carina on apical curve; border narrow. Prosternum protuberant; intercoxal part very wide in front, widely and lightly channelled,

abrupt and non-sulcate on base; episterna covered with fine wavy transverse striae. Ventral segments smooth. Anterior femora short, wide, compressed, lightly channelled below, posterior margin of lower side wide in middle; tibiae wide, palmate, external teeth strong and close together; intermediate tibiae wide, incrassate, external edge arcuate above subapical spur, this strong, acute.

Length 13.5-16, breadth 3.3-4.2 mm.

Hab.: New South Wales—Urana District (Sloane); Victoria—Mildura (French).

Note.—Two specimens have been sent to me by Mr. C. French as coming from near Burketown on the Gulf of Carpentaria, which, though appearing at first sight to be a different species from *C. quadratifrons*, yet, on a close examination, reveal no differences that I can see, except their larger size. I regard them as merely the northern form of a widely distributed species (dimensions, head 2.8×2.8 mm., prothorax 4.5×4.3 mm., elytra 10×4.6 mm.). It is possible this may be *C. crassicollis*, Putz., but it is not to my eye a more elongate and convex species than *C. planiceps*: besides Putzeys' brief note (not a description) on *C. crassicollis* seems to infer only 3-dentate anterior tibiae for that species.

C. quadratifrons is closely allied to *C. planiceps*, which it resembles in size and appearance; but decided differences to which attention may be directed are the shorter and more parallel prothorax, the clypeus with the wings less advanced beyond the median part, and the 4-dentate anterior tibiae.

• CLIVINA CARPENTARIA, n.sp.

Narrow, cylindrical. Head not rugulose; prothorax longer than broad; elytra with striae entire, fifth joining sixth at base; interstices convex, eighth not visible on apical curve; ventral segments rugulose laterally; anterior tibiae 4-dentate. Black, shining; legs piceous brown.

Head smooth, large, depressed (1.6×2 mm.); a shallow transverse line dividing clypeus from front, and a strong sulcus dividing clypeal wings from supra-antennal plates; clypeal elevation

well defined, almost semicircular: clypeus with median part truncate; wings lightly and abruptly advanced beyond median part, wide, flat, truncate, rounded at external angles and laterally; supra-antennal plates depressed, declivous externally, lightly rounded, narrowly margined; facial sulci short; supra-orbital setae placed near each eye in a short depression, upper edge of this depression forming a thick round carina, lower edge forming a narrow carina; eyes globose, very prominent, projecting strongly from sides of head. Mandibles large, wide at base, decussating. Mentum deeply and obliquely emarginate; median tooth wide, short; lobes strongly striolate, rounded at apex. Prothorax levigate, longer than broad (2.8×2.5 mm.), widest a little in front of posterior angles, a little narrowed anteriorly (ant. width 2.25 mm.); sides lightly and widely sinuate; posterior angles rounded; anterior margin truncate; anterior angles obtuse; border reflexed on sides; median and anterior lines strongly impressed; lateral basal impressions wanting. Elytra cylindrical, parallel, hardly wider than prothorax (5.7×2.6 mm.); base widely and very lightly emarginate; shoulders obtuse; apex strongly declivous; striae strongly impressed, crenulate; interstices convex, seventh and eighth uniting and forming a short carina at base; lateral border narrowly reflexed. Prosternum protuberant; intercoxal part wide anteriorly, not transversely sulcate on base; episterna finely rugulose and transversely striolate. Ventral segments smooth in middle, first and second strongly and closely longitudinally striolate, third striolate-punctate, fourth, fifth and sixth rugulose-punctate at sides. Anterior femora short, wide, lightly channelled below, posterior margin of lower side wide; anterior tibiae wide, palmate, three external teeth very strong and close together.

Length 11, breadth 2.5 mm.

Hab.: Queensland—Gulf of Carpentaria (sent to me by Mr. C. French).

Grandiceps group.

Size large. Head large; clypeus with median part wide, rounded, a light wide sinuosity dividing it on each side from

wings; these very wide, rounded, hardly more advanced than centre of median part. Mandibles long, decussating, wide at base. Labrum 5-setose. Palpi filiform; labial with penultimate joint slender, longer than terminal. Prothorax transverse; border not reaching base on sides of basal curve; anterior marginal puncture very near anterior angle. Elytra with four striae free at base; submarginal humeral carina short, feebly developed. Prosternum with intercoxal part greatly narrowed (not attenuate) anteriorly. Anterior tibiae 4-dentate.

CLIVINA GRANDICEPS, n.sp.

Comparatively short. Head large, smooth, vertex convex; prothorax short, lateral border not attaining base; anterior tibiae 4-dentate. Black, shining; legs light piceous brown; palpi piceous.

Head large, transverse (2.4 × 2.9 mm.); vertex convex, laevigate; clypeus slightly rugulose, divided from front by a straight transverse impression (this impression hardly distinct in middle); anterior margin sinuate; median part lightly rounded in middle; wings large, wide, divided from median part by a light sinuosity, widely rounded in front and laterally, a little more prominent than median part, lateral setæ placed in a sharply defined foveiform puncture about middle of each wing; supra-antennal plates small, convex, divided from clypeal wings by a light sinuosity, roundly protuberant and margined laterally; facial sulci lightly impressed, two supra-orbital setæ on each side placed a considerable distance from eye in a deep groove, the lower as well as the upper edge of this groove carinate; eyes convex; projecting beyond supra-antennal plates; orbits enclosing eyes lightly behind, sloping obliquely to neck. Mandibles large, wide at base, decussating. Labrum large; anterior margin subrotundate (lightly truncate in middle), 5-setose. Mentum lightly and squarely emarginate; median tooth short, widely triangular; lobes rugulose, wide, obliquely truncate to apex on external side. Palpi filiform. Antennae long, slender, not incrassate, first joint long (about as long as two succeeding ones). Prothorax short, transverse (2.2 × 2.9 mm.),

widest just behind anterior angles, convex, slightly depressed on each side of median line, abruptly declivous to base; sides parallel; anterior margin emarginate in middle; anterior angles obtuse, explanate; posterior angles wide, but marked; basal curve short; lateral border wide and reflexed on sides, interrupted and upturned at posterior angles just before posterior marginal puncture, thick and indistinct on anterior part of basal curve, obsolete on posterior part and not reaching base; border strongly reflexed and marginal channel wide on base; median and anterior lines strongly impressed; lateral marginal punctures large, anterior placed near anterior angle on the explanate border. Elytra convex, very little wider than prothorax (5.7×3.1 mm.), hardly narrowed to base, wide at apex; sides lightly rounded; base truncate; shoulders rounded; striæ entire, crenulate, strongly impressed, weaker on apical declivity, fifth joining sixth at base, seventh obsolete on apical curve; interstices convex, eighth obsolete towards apex; submarginal humeral carina short, thick; lateral border wide, reflexed. Prosternum with intercoxal part lightly concave, narrow (not attenuate) anteriorly, base abrupt, not transversely sulcate; episterna overhanging in front, transversely rugulose-striate. Ventral segments smooth, excepting two basal ones lightly longitudinally striolate. Anterior femora light, lower side straight; anterior tibiæ 4-dentate, apex strongly outturned, external teeth wide apart, strong, triangular; external spur of intermediate tibiæ fine, acute.

Length 10.5, breadth 3.1 mm.

Hab.: Queensland—Gulf of Carpentaria (one specimen, given to me by Mr. C. French).

Punctaticeps group.

Size small. Facial sulci not recurved; clypeus with median part emarginate, its angles more or less marked. Elytra with fourth and fifth striæ confluent at base, seventh not interrupted at beginning of apical curve; submarginal humeral carina well marked; a distinct elongate striole at base of first interstice.

Prosternum with intercoxal part attenuate anteriorly, sulcate on base. Anterior femora with posterior margin of lower side strongly dilatate in middle, tibiae 4-dentate.

Table of species.

- | | |
|--|----------------------------------|
| A. Form cylindrical, prothorax longer than broad... | } <i>C. punctaticeps</i> , Putz. |
| | |
| AA. Form subdepressed, prothorax broader than long | <i>C. lobipes</i> , Sl. |

CLIVINA PUNCTATICEPS, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 18.

Closely allied to *C. tumidipes*, Sl., of which it seems the northern form, and from which it only appears to differ by its ferruginous colour; prothorax proportionately wider; elytra a little more deeply striate, the interstices more convex. The legs are similar in all respects.

I offer the following brief diagnosis founded on a specimen sent to me for examination by the Rev. Thos. Blackburn:—

Elongate, cylindrical. Head moderate; front punctulate; vertex coarsely punctulate in middle and posteriorly from side to side: clypeus with median part projecting strongly beyond wings, lightly emarginate, its angles prominent, triangular; wings small, rounded, strongly divided from median part and lightly from supra-antennal plates. Prothorax a little longer than broad (1.6 × 1.5 mm.), a little narrowed anteriorly (ant. width 1.3 mm.). Elytra oval (3.5 × 1.75 mm.), strongly punctate-striate; fourth stria joining fifth at base; a distinct striole at base of first interstice; the interstices convex, eighth well defined for whole length, carinate at base. Prosternum with intercoxal part attenuate anteriorly. Anterior femora thick, strongly and roundly dilatate on middle of lower side; anterior tibiae 4-dentate.

Length 5.5-6, breadth 1.7-1.75 mm.

Hab.: Queensland—Cape York; Rockhampton (Coll. Blackburn; Macleay Museum).

CLIVINA TUMIDIPES, n.sp.

P.L.S.N.S.W. 1889 (2), iv. p. 720.

Elongate, parallel. Head punctulate anteriorly, eyes prominent; prothorax longer than broad, convex: elytra parallel, convex, punctate-striate; fourth and fifth striæ confluent at base; a short distinct submarginal carina at shoulder; an elongate fine striole at base of first interstice; anterior femora with posterior margin of lower side strongly and roundly dilatate, anterior tibiæ 4-dentate. Black, shining; under surface piceous; anterior legs piceous brown; four posterior legs, antennæ and palpi reddish testaceous.

Head moderate; front closely and finely punctate; vertex smooth (sometimes some fine punctures near posterior extremity of each facial carina): clypeus not divided from front; median part deeply and rather angularly emarginate, its angles obtuse, very lightly advanced beyond and hardly divided from wings; these small, hardly divided laterally from supra-antennal plates; lateral setæ of clypeus placed in a rugose depression at base of each wing; supra-antennal plates small, depressed; eyes globose, prominent, lightly enclosed behind; orbits abrupt behind. Prothorax smooth (sometimes a few transverse wrinkles on disc), longer than broad (1.7×1.5 mm.), widest near posterior angles, very little narrowed anteriorly (ant. width 1.4 mm.); sides lightly subsinuate behind anterior marginal punctures, decidedly narrowed from these to anterior angles; anterior margin truncate; anterior angles projecting very slightly; lateral basal impressions obsolete. Elytra narrow, parallel, hardly wider than prothorax (4×1.7 mm); base truncate; striæ entire, narrow, lighter towards apex, closely punctate, seventh strongly marked in all its course; interstices lightly convex, eighth well developed on apical curve. Prosternum with intercoxal part attenuate anteriorly, transversely sulcate on base; episterna overhanging greatly anteriorly, shagreened, transversely striolate. Ventral segments minutely shagreened under a strong lens. Anterior femora short, wide, compressed; anterior tibiæ with two strong external teeth and a short triangular

prominence above apical projection; anterior trochanters projecting lightly and obtusely beyond base of femora.

Length 5.6-7, breadth 1.3-1.7 mm.

Hab.: N.S. Wales—Junee District, Urana District (Sloane); Victoria—Swan Hill (French); South Australia—Adelaide (Blackburn).

This species must be very closely allied to *C. emarginata*, Putz., but evidently differs in colour. I took it plentifully twenty miles north-east from the town of Urana on the margins of tanks dug to water sheep (the only permanent water), in the months of December and January; as many as 32 specimens were washed out of part of the muddy margin of one tank in less than half an hour.

CLIVINA EMARGINATA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 15.

“Nigra nitida, ore, antennis, pedibus, elytrorum basi apiceque externis testaceis. Clypeus emarginatus, alis subæqualis. Vertex antice profunde et dense punctatus. Prothorax subquadratus, laevis. Elytra cylindrica, basi intus oblique truncata, humeris rotundatis. Femora antica extus in medio inferiore dilatata. Long. $5\frac{3}{4}$, El. 4, Lat. $1\frac{1}{4}$ mill.”*

M. Putzeys supplemented this diagnosis by remarks which I translate as follows:—

This species forms a link between the twenty-seventh group in which the rounded wings of the epistoma extend considerably beyond the epistoma itself and the twenty-eighth,† in which the

* It is evident there is an error in these measurements; the length given for the elytra is certainly too great.

† By twenty-seventh and twenty-eighth groups M. Putzeys appears to have meant, on this occasion, the groups of which *C. nyctosyloides*, Putz., for which he formed a new twenty-seventh group in place of his old twenty-seventh, *C. procera* being transferred to *Scolyptus*, and *C. heterogena*, Putz., are respectively the types; but as on the following page he refers *C. heterogena* to a thirtieth group it is apparent that twenty-eighth is a mistake.

epistoma, more or less emarginate, has its angles prominent, extending beyond the wings, which are usually angular.

In *C. emarginata* the epistoma is deeply emarginate; its angles are not more advanced than the wings, from which it appears to be separated by a depression which there is between them. The anterior elevation, broad, though but little raised, is strongly punctate the same as all the anterior part of the head; the puncturation almost disappears on the vertex, which is very convex and the fovea of which is shallow. The prothorax is almost square, just a little longer than broad; the sides are lightly narrowed at the anterior third, but then regain their width up to the anterior angles, which are obtuse and declivous. The surface is smooth, the median line is very deep from the base to the anterior line; one can hardly distinguish a feeble trace of the two lateral foveæ. The elytra are cylindrical, obliquely truncate, internally at the base; the shoulders are rounded; the striæ become hardly distinct towards the apex; they are strongly punctate. The anterior femora are thick, their lower surface is dilatate externally so as to form a rounded prominence, but the trochanter projecting at the apex makes a prominent angle.

Australia. One specimen (Coll. Casteln.)

In facies *C. emarginata* must resemble *C. tumidipes*, Sl., but it is differently coloured. The clypeus may resemble that of *C. lobipes*, Sl., but seems as if it should be not unlike *C. borilla*, Blkb. I should expect the tibiæ to be 4-dentate, and the prosternum with the intercoxal part narrow. Its colour should render its recognition easy. I have associated it with *C. adelaida* on account of the form of the anterior femora.

CLIVINA LOBIPES, n.sp.

Robust, parallel, subdepressed. Head short, wide, finely rugulose-punctate; prothorax subquadrate, punctate on disc; elytra punctate-striate, fourth stria joining fifth at base; prosternum with intercoxal part attenuate, transversely sulcate on base, episterna strongly rugose and transversely striolate; anterior

femora lobate, tibiæ strongly 4-dentate. Reddish piceous; elytra lighter coloured than head and prothorax, with a dark piceous spot on posterior part of disc.

Head wide, depressed; front and clypeal elevation closely rugulose-punctate; a round fovea in middle behind punctate part; vertex wide, smooth; frontal impressions wide, shallow; facial sulci lightly impressed; clypeal elevation hardly raised: clypeus not divided from front; median part deeply emarginate, defined on each side by a slight ridge, not angulate laterally; wings small, not divided from median part, sloping roundly backwards to and divided from supra-antennal plates by a faint wide sinuosity; eyes prominent, hemispherical, lightly enclosed behind. Prothorax subquadrate (1.5×1.55 mm.), lightly convex, coarsely punctate except on anterior part of disc and near sides; anterior margin truncate, angles obtuse, but marked; sides parallel, lightly and widely emarginate; posterior angles marked; basal curve sloping sharply to base on each side; median line deeply, anterior line lightly impressed. Elytra very little wider than prothorax (3.2×1.6 mm.), convex—not cylindrical,—parallel on sides; base truncate; shoulders rounded, with border prominent; striæ entire, seventh not interrupted at beginning of apical curve; interstices lightly convex, eighth finally carinate at base, narrow and lightly carinate near apex. Anterior femora with lower side forming a wide round protuberance; external spur of intermediate tibiæ long, acute.

Length 6.3, breadth 1.6 mm.

Hab.: Queensland—King's Plains Station (28 miles S.W. from Cooktown; one specimen sent to me by Mr. N. H. Gibson).

It seems to be allied to *C. emarginata*, Putz.; the clypeus and anterior femora are apparently similar, but *C. lobipes* is evidently a broader species, differing in having the prothorax not longer than broad, and roughly punctate on the disc. From *C. tumidipes*, Sl., and *C. punctaticeps*, Putz., species with lobate anterior femora, it is easily distinguished by its wider and less cylindrical form, shorter punctate prothorax, &c.

Blackburni group.

Size small, form cylindrical. Head large, convex; occiput short, wide; eyes not prominent; facial sulci recurved; clypeus with angles of median part very lightly advanced beyond wings, these with external angles rounded, but marked; supra-antennal plates projecting strongly beyond clypeus. Prothorax longer than broad, anterior line wanting. Elytra with fourth and fifth striae confluent at base. Prosternum with intercoxal part attenuate anteriorly, sulcate on base. Anterior tibiae 4-dentate.

The facies of this species, the short wide head, the long narrow cylindrical prothorax and elytra, the non-prominent eyes, &c., have caused me to separate *C. blackburni* from *C. heterogena*, Putz., and form a distinct group for it.

CLIVINA BLACKBURNI, n.sp.

Narrow, parallel, cylindrical. Head large, facial sulci recurved, eyes very depressed; prothorax longer than broad, anterior line wanting; elytra lightly punctate-striate, fourth stria joining fifth at base, interstices depressed, eighth carinate at base, narrow and carinate on apical curve; anterior tibiae 4-dentate. Piceous brown.

Head large, convex; vertex smooth; front finely punctate; clypeus not divided from front, declivous to median part; this depressed, truncate-emarginate, its angles projecting lightly and obtusely beyond wings, lateral ridges short, wide, distinct; wings subquadrate, with external angles rounded; supra-antennal plates long, lightly rounded externally, projecting sharply and decidedly beyond wings of clypeus, bordered; a longitudinal ridge extending backwards from base of clypeal wings; facial sulci lightly impressed, an elongate impression extending backwards from their anterior part; facial carinae distant from eyes, short; eyes depressed, deeply set in head, hardly projecting; orbits forming a thick ridge above eyes, projecting sharply but lightly from head behind. Antennae moniliform, incrassate; joints 5-11 very short, transverse, compressed. Mentum deeply emarginate;

median tooth moderate, triangular, pointed. Mandibles short, thick. Prothorax smooth (a few light rugæ near sides), parallel, very little wider than head with eyes, longer than broad (1.4×1 mm.), roundly and strongly declivous to base; anterior margin truncate; base wide; basal curve short, rounded; posterior angles widely rounded; basal angles obtuse; median line well marked. linear. Elytra parallel, cylindrical (3×1.2 mm.), truncate at base, widely rounded at apex; apical declivity roundly abrupt; striæ entire, lightly impressed, finely punctate; interstices not at all convex, posterior puncture of third much nearer apex than usual. Prosternum with intercoxal part attenuate anteriorly, transversely sulcate on base; episterna obsoletely transversely striolate, overhanging anteriorly. Legs short; anterior femora short, thick, rounded on lower side; anterior tibiæ strongly 4-dentate; upper tooth short, triangular; posterior tibiæ short, incrassate.

Length 5.3, breadth 1.2 mm.

Hab : South Australia—Lake Callabouna.

A very distinct species; its narrow cylindrical shape, with the elytra shortly and widely terminated, give it a general resemblance to a member of the family *Bostrychidae*.

CLIVINA OLLIFFI, n sp.

Robust, parallel. Head large; prothorax a little broader than long; elytra long, parallel; fourth stria joining fifth at base; submarginal humeral carina feebly developed; eighth interstice marked, but not carinate on apical curve; a well marked striole at base of first interstice. Prosternum with intercoxal part attenuate anteriorly; transverse sulcus of base obsolete. Anterior tibiæ 4-dentate. Black; prothorax piceous black; anterior legs testaceous brown, four posterior legs testaceous.

Head large (1.3×1.5 mm.), densely rugose-punctulate on gule and behind eyes; vertex convex, lævigata; front lightly impressed and punctulate in middle, lightly and widely impressed on each side (the impressions a little rugulose); clypeal elevation slightly

raised, narrow, arcuate: clypeus wide, depressed; median part truncate, its angles small, triangular, projecting; wings strongly divided from median part, anterior margin sloping lightly forward to external angles, these prominent, obtuse at apex; supra-antennal plates depressed, very strongly divided from clypeal wings, prominent and rounded externally: eyes convex, not prominent, lightly enclosed behind; facial sulci obsolete; facial carinae short, distant from eyes. Mandibles wide, short, lightly decussating. Labrum 5-setose. Mentum rugulose-striate. Labial palpi slender, two apical joints of about equal length. Antennae short, lightly incrassate. Prothorax a little broader than long (1.8×1.9 mm.), lightly convex, subdepressed along median line, lightly declivous to base, transversely striolate, lightly punctulate except near anterior margin on middle of disc and on basal declivity; sides parallel, not narrowed anteriorly; posterior angles rounded, not marked; anterior margin truncate on each side, emarginate in middle; anterior angles obtuse; border narrow; median line deeply impressed; anterior line well marked; lateral basal impressions hardly marked. Elytra hardly wider than prothorax (4.5×2 mm.), widest behind middle, subparallel on sides, very lightly rounded, a little narrowed to shoulders; disc subdepressed; sides and apex strongly and deeply declivous; base truncate; shoulders marked; striae deep, except towards apex, strongly crenulate-punctate, seventh entire; interstices subdepressed, hardly convex, eighth convex, narrow (hardly carinate) on apical curve, greatly narrowed about basal fifth, shortly and feebly carinate at humeral angle; lateral channel shallow; posterior puncture of third interstice placed at extremity of third and fourth striae. Prosternum protuberant; episterna shagreened, obsoletely transversely striolate, overhanging anteriorly. Anterior trochanters projecting strongly and obtusely at apex; femora wide, compressed, posterior edge of lower side rounded; tibiae wide, palmate; external spur of intermediate tibiae long, acute.

Length 8, breadth 2 mm.

Hab.: West Australia - Beverley (sent to me by Mr. A. M. Lea).

A remarkable and isolated species, for which I have found it necessary to form a separate group. In general appearance, shape of head, prothorax, elytra, prosternum and legs it resembles the species of the "*cribrosa group*"; but the fourth stria is out-turned to join the fifth at the base. The crenulations of the elytral striæ are deep and punctiform, and from them fine short transverse striæ are given off, causing the interstices to have an undulate appearance. The external angles of the clypeal wings are strongly marked and quite as advanced as (if not a little more so than) the angles of the median part; the anterior margin of the wings slopes inwards and thus causes the median part to project sharply forward on each side. The elytra are concave on the three inner interstices near the base, and have a distinct elongate scutellar striole.

I have named this species in memory of my friend Mr. A. S. Olliff, late Government Entomologist for New South Wales.

Heterogena group.

Size small. Eyes prominent; clypeus with median part angular, the angles projecting beyond the wings, these angular laterally. Elytra with fourth and fifth striæ confluent at base, seventh not interrupted at beginning of apical curve; submarginal humeral carina present; no striole noticeable at base of first interstice. Prosternum with intercoxal part attenuate anteriorly, sulcate on base. Anterior tibiæ 4-dentate.

Nine species, viz., *C. angustula*, Putz., *C. australica*, Sl., *C. deplanata*, Putz., *C. difformis*, Putz., *C. flava*, Putz., *C. heterogena*, Putz., *C. odontomera*, Putz., *C. oodnadatta*, Blkb., and *C. tuberculifrons*, Blkb., seem to belong to this group; of these I know only two, therefore do not attempt to tabulate them.

CLIVINA HETEROGENA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 41; Ann. Soc. Ent. Belg. 1866, x. p. 189.

Although I have a suspicion that *C. heterogena* will ultimately prove to be identical with *C. angustula*, the evidence before me is insufficient to enable me to feel absolutely certain about this; I therefore append a translation of the description of *C. heterogena*.

The anterior elevation, well marked and rather short, is separated from the vertex by a punctate impression of but little depth; the summit of the head bears a wide longitudinal impression containing some large punctures; the punctures on each side near the eyes are of the same size.

The eyes, of which only half is distinct, are very prominent. The prothorax is square, a little sinuate on the sides, as broad in front as behind; all the surface, except the anterior part in the middle, is covered with very distinct punctures.

The elytra are very elongate [and] cylindrical; their rounded shoulders are reflexed; they are of a piceous brown, but their external border, the suture before and behind, and the shoulders are of a testaceous colour. The fourth stria turns out at the base and reaches the eighth interstice.

The under surface of the body is black; the legs, except the upper side of the femora, the palpi and the antennæ are testaceous. The anterior tibiæ have externally two very long teeth and a small not very distinct tooth.

Length $5\frac{1}{2}$, El. $2\frac{3}{4}$, breadth $1\frac{1}{2}$ mm.

Australia. One specimen belonging to M. de Chaudoir, who received it from M. Melly.

The specimen noted under form "e" of *C. angustula*, Putz., (*vide post*), from Windsor, N.S.W., agrees in all respects with the description of *C. heterogena*. If "e" be merely a form of *C. angustula*, then that species must sink to a synonym of *C. heterogena*; but this is a point which, with the identity of *C. difformis*, Putz., and *C. odontomera*, Putz., cannot be determined till exhaustive series of specimens of *C. angustula* and allied forms, from various localities (including Rockhampton) on the east coast of Australia, have been examined.

CLIVINA ANGUSTULA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 42; Ann. Soc. Ent. Belg. 1866, x. p. 190.

Narrow, parallel, subcylindrical. Black, head and prothorax piceous black; elytra with suture and margins (excepting base) reddish; legs reddish, four posterior paler than anterior. Head wide, short before eyes, front and vertex punctate: clypeus divided from front by a wide shallow punctate depression; clypeal elevation prominent, widely rounded; a wide depressed space near anterior margin; median part emarginate-truncate, the angles lightly advanced beyond wings, obtuse; wings square, with external angles rounded, supra-antennal plates wide, rounded externally, projecting decidedly beyond clypeal wings; eyes prominent; facial sulci hardly impressed, facial carinæ narrow, well developed. Prothorax about as long as broad (1.3×1.2 mm.) a little narrowed anteriorly (ant. width 1.1 mm.), convex, punctate; sides lightly and widely sinuate behind anterior marginal puncture. Elytra parallel (2.7×1.3 mm.), convex, punctate-striate; striæ entire; eighth interstice carinate at base and on apical curve. Prosternum with intercoxal part attenuate anteriorly; episterna rugulose and striolate. Anterior tibiæ 4-dentate.

Length $4.2-5.2$, breadth $1-1.4$ mm.

Hab. : N.S. Wales—Clarence River, Windsor (Lea), Carrathool (Sloane); Victoria—Lillydale, Ferntree Gully (Sloane); South Australia (Blackburn).

The description given above is founded on specimens taken at Lillydale and Ferntree Gully, near Melbourne. Putzeys' description suggests the inference that the prothorax is not narrowed anteriorly, but in my specimens, which I have no doubt are *C. angustula*, Putz., the prothorax certainly is narrowed; different specimens vary in degree in this respect, which I believe to be a sexual difference.

C. angustula seems to present considerable differences in colour and size;* its constant features are the puncturation of the head and prothorax, the form of the clypeus, the striation of the elytra, the anterior femora not dilatate on lower side, the trochanters prominent at base of femora, and the digitation of the anterior tibiæ.

I offer the following notes on some variations that have come under my notice :—

(1). A numerous series of specimens sent to me by Mr. A. M. Lea, taken at Windsor, N.S.W., vary as follows :—

Length 4·2-5·2, breadth 1·1-1·4 mm. Colour (*a*) testaceous (immature); (*b*) ferruginous (slightly immature?); (*c*) ferruginous with interstices 2-5 of elytra obscurely piceous on posterior part of disc; (*d*) ferruginous with interstices 2-5 wholly piceous except at apex; (*e*) head and prothorax piceous brown, elytra reddish with interstices 2-4 piceous black on posterior part of disc and apical declivity.

(2). Specimens from the Clarence River, also received from Mr. Lea, are apparently narrower and more depressed, testaceous with posterior part, excepting apices of interstices 2-4, obscurely piceous. This form seems a variety or closely allied species, but requires studying with more specimens than are available to me.

(3). Specimens from Carrathool (Murrumbidgee River) have the elytra more depressed; one specimen (immature) is pale testaceous, the others are coloured as in the description above. This form has also been sent to me by the Rev. T. Blackburn, from South Australia; it seems likely to be *C. deplanata*, Putz.

(4). A specimen has been sent to me by the Rev. T. Blackburn, which cannot in any way be distinguished from "No. 3" above, except by having the anterior femora with the lower edge forming a decidedly acute triangular projection about anterior third. This might be *C. odontomera*, Putz., but I should be unwilling to

* *Vide* Ann. Soc. Ent. Belg. 1866, x. p. 190, where seven varieties are noted by M. Putzeys.

separate it from "No. 3" on a single specimen, and without a knowledge that the form of the lower side of the tibiæ was constant; especially seeing that gummied on the same card, and therefore presumably from the same locality, was a specimen exactly resembling it, but with femora as in *C. angustula*.

CLIVINA DEPLANATA, Putzeys.

Ann. Soc. Ent. Belg. 1866, x. p. 190.

In his unsatisfactory note on this species all that M. Putzeys has to say is that it is with hesitation he separates this species from *C. angustula*, which it resembles in every respect except that the prothorax is a little broader and especially decidedly flatter. The colour is as variable as in *C. angustula*. All the specimens seen came from Melbourne.

CLIVINA FLAVA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 17.

"Testaceo-flava, capite prothoraceque obscurioribus. Caput in vertice late nec profunde foveolatum, parce punctulatum. Prothorax brevis subquadratus, angulis anticis deflexis, lateribus rectis, utrinque in medio præsertim punctatus. Elytra subcylindrica, basi truncata, humeris rotundatis, striis integris punctatis, interstitio 3^o quadripunctato. Tibiæ antice latæ, apice longe digitatæ, extus bidigitatæ denticuloque superiore armatæ.

"Long. $5\frac{1}{2}$, El. $2\frac{3}{4}$, Lat. $1\frac{1}{3}$ mill."

Putzeys' remarks on this species are very full. I select for translation those bearing on important features.

Of a testaceous red, with the head, prothorax, and apex of the mandibles of a clear brown. The epistoma is rather narrow, a little emarginate; its angles are prominent and project beyond the little wings, which are very definitely separated from them; the anterior elevation is hardly marked, glabrous, separated from the vertex by a deep irregular punctate impression.

The vertex bears a longitudinal fovea, in the centre of which some large punctures are noticeable; the occiput and the sides of

the head alike bear some punctures. The eyes are very prominent and project decidedly beyond the large wings; the posterior border extends over half their breadth.

The prothorax is almost square, a little broader than long; the anterior margin is not emarginate; the sides are straight; the anterior angles are obtuse, but depressed; the border widens a little and forms a slight prominence at the posterior angles, which are marked by a large puncture; the surface is very lightly convex; the median line is wider and deeper anteriorly than towards the base; each side of the prothorax is covered with punctures, which are particularly distinct in the middle and do not extend to the base; the two lateral impressions are oblong and very lightly marked.

The elytra are a little wider than the prothorax, cylindrical, truncate at the base; their shoulders are rounded; the striæ are deep and very distinct for their whole length, punctate almost to the apex; the interstices are lightly convex. The head is strongly rugose beneath; the prothorax is much more finely rugose and transversely striolate. The abdomen is smooth. The anterior trochanters form a feeble prominence at the base of the femora; the tibiæ are wide, strongly digitate externally, and sulcate on upper surface; the intermediate tibiæ have three or four spiniform bristles above the spur.

Hab.—Rockhampton (Coll. Castelnau; several specimens).

I have been unable to identify *C. flava* among the species I have seen.

CLIVINA DIFFORMIS, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 19.

“Castanea, capite elythroque singulo in medio piceo; palpis, antennis pedibusque brunneo-testaceis. Prothorax elongatus, antice angustatus obsolete punctulatus. Elytra cylindrica, basi truncata. Tibiæ anticæ extus bidentatæ.

“Long. $5\frac{1}{2}$, El. $3\frac{1}{2}$, Lat. $1\frac{1}{4}$ mill.”

The following is a translation of Putzeys' remarks on this species, which is unknown to me:—

The vertex is punctate; it bears a lightly impressed oblong wide fovea, where the punctures are denser. The antennæ are thick, moniiform. The eyes are prominent, but greatly enclosed by the postocular tubercles. The prothorax is longer than broad, narrowed in front, but particularly behind the anterior angles; these are lightly advanced; the posterior angles are distinct; the lightly convex surface bears some striolæ and some small scattered punctures.

The elytra are cylindrical; their base is truncate, but the shoulders are a little rounded; under a strong lens it is seen that the interstices are covered with small transverse undulations not close together. The elytra are piceous, with all their margins (including the suture) of a rather clear brown.

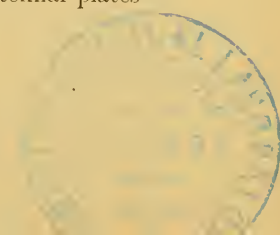
The femora are narrow. The anterior tibiæ, sulcate on upper side, have externally two very strong teeth. The apical digitation is thicker, and one-half longer than the inner apical spine.

Hab. : Probably the north-west of Australia (Coll. Castelnau; a single specimen only).

CLIVINA AUSTRALICA, n.sp.

Narrow, parallel, subcylindrical. Head short, convex; eyes large, convex, not prominent; facial sulci lightly recurved: prothorax parallel, longer than broad: elytra long, parallel; fourth stria joining fifth at base; eighth interstice distinct on apical curve; submarginal humeral carina moderate, narrow; prosternum with intercoxal part attenuate anteriorly; episterna very finely striolate near lateral margins, overhanging anteriorly; anterior tibiæ 4-dentate. Ferruginous.

Head sparsely covered with minute, nearly obsolete punctures: clypeus with median part wide, truncate (obsoletely emarginate between angles), angles obtuse, hardly prominent; wings small, hardly divided from but not so prominent as angles of median part, outer angles obtuse, external side straight; supra-antennal plates



projecting sharply beyond wings; recurved part of facial sulci well marked, lightly oblique; facial carinæ well developed, narrow; eyes very lightly enclosed behind. Prothorax longer than broad (1.15×1 mm.), hardly narrowed anteriorly, declivous to base, transversely striolate near sides; anterior margin truncate; anterior angles marked, not prominent; posterior angles widely rounded; border narrow; median line strongly impressed; anterior line lightly marked; lateral basal impressions obsolete. Elytra hardly wider than prothorax (2.3×1.1 mm.), parallel, convex, widely rounded, and very declivous to apex; base lightly emarginate; shoulders rounded but marked; striæ lightly impressed, entire, finely punctate, seventh not interrupted near apical curve; interstices lightly convex on anterior part of disc. Anterior femora short, wide; intermediate tibiæ wide, external margin arcuate, external spur long, slender, acute.

Length 4.3, breadth 1.1 mm.

Hab.: N.W. Australia (sent by Mr. Masters.)

Allied to *C. angustula*, Putz., but distinguished by its more cylindrical form, impunctate prothorax, &c. The form of the clypeus is as in *C. dorsalis*, Blkb., but the outer angles of the wings are more rectangular. It should resemble, judging from the description, *C. verticalis*, Putz., but is smaller, its prothorax is exceptionally long, and the outer angles of the wings of the clypeus should be more marked. It is evidently distinct from *C. difformis*, Putz.; attention may be directed to the following points of difference from Putzeys' description, the smaller size, different colour, eyes lightly enclosed in the weakly developed posterior part of orbits, anterior femora wide, tibiæ 4-dentate.

CLIVINA ODONTOMERA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 18.

"Dilute brunnea. Caput undique grosse rugoso-punctatum. Prothorax latitudine longior, convexus, antice parum angustatus, parce punctulatus. Elytra subcylindrica, basi intus truncata, humeris rotundatis, striis integris punctatis, interstitio 3°

4-punctato. Femora antica subtus ante apicem dentata; tibiæ latae, apice longe digitatæ, extus digitatæ [bidigitatæ] denticuloque superiore armatæ.

“Long. 5, El. $3\frac{1}{4}$, Lat. $1\frac{1}{4}$ mill.”

“Rockhampton (Coll. Castelnau).”

Appended is a translation of his further remarks on this species:—

It has the appearance of *C. punctaticeps*; however, the prothorax is more convex, narrower, particularly anteriorly; it is usually a little more distinctly punctate.

The epistoma is wider, more truncate; the head is covered with punctures [which are] much more numerous and almost rugulose. The anterior femora, less wide and less thick, have not beneath an inflation analogous to that of *C. lobata*, but they have, a little before the apex, a strong acute tooth, and the apex of the trochanters is equally raised in the form of a tooth.

It appears to me that *C. odontomera* must be allied rather to *C. angustula*, Putz., than to *C. adelaidæ*, Blkb.

Bovillæ group.

Clypeus with median part and wings almost on same level; median part divided from wings on each side by a small triangular sinuosity. Elytra with fourth and fifth striæ confluent at base, submarginal humeral carina present. Prosternum with intercoxal part very narrow and canaliculate anteriorly, sulcate on base; pectoral ridges short, well developed. Anterior tibiæ 4-dentate.

I do not feel sure that I am right in separating *C. bovillæ* from the “*heterogena group*”; this has been done on account of the different form of the intercoxal part of the prosternum. Probably the “*punctaticeps, blackburni, olliffi, heterogena, and bovillæ groups*” might with advantage be regarded as sections of one large group.

CLIVINA BOVILLÆ, Blackburn.

P.L.S.N.S.W. 1889 (2), iv. p. 717.

Piceous brown. Robust, parallel. Head wide, depressed anteriorly; clypeal elevation prominent, convex, hardly arcuate:

clypeus widely depressed near anterior margin; median part wide, subtruncate (hardly emarginate), its angles obtuse, very lightly marked, hardly advanced beyond wings; these small, with external angles rounded; supra-antennal plates projecting sharply and decidedly beyond wings; facial carinæ wide; eyes prominent, enclosed behind. Prothorax convex, subquadrate (1.65×1.65 mm), lightly narrowed anteriorly (ant. width 1.5 mm); sides hardly rounded (not sinuate); basal curve short. Elytra wider than prothorax (3.6×1.9 mm.), convex; sides parallel; lateral channel wide and strongly bordered at shoulders; striae entire, deeply impressed, finely crenulate; interstices convex (depressed near apex), eighth narrowly carinate at base and apex. Prosternum with intercoxal part small, narrow and canaliculate anteriorly, base sulcate; pectoral ridges short, distinct; episterna coarsely rugulose. Anterior femora wide; tibiae strongly 4-dentate, the upper tooth small.

Length 6.6-8, breadth 1.7-1.9 mm.

Hab. : Northern Territory of S.A. (Mrs. Bovill); West Australia; Queensland—Gulf of Carpentaria (received from Mr. French).

The position of *C. bovilla* is between *C. australasiae*, Boh., and *C. heterogena*, Putz. The clypeus conforms nearly to that of *C. heterogena*, but the intercoxal part of the prosternum, though narrower than in *C. australasiae*, is wider and does not form a narrow ridge, as it does in *C. heterogena*. It appears to be widely spread along the north coast of Australia, and judging from specimens in my possession varies considerably in facies; the form of the clypeus and the intercoxal part of the prosternum are its constant features. The description given above is founded on a type specimen kindly lent to me by the Rev. T. Blackburn.

CLIVINA CAVA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 38: Ann. Soc. Ent. Belg. 1866, x. p. 184; l.c. xi. p. 13.

Convex, parallel. Head wide, depressed; eyes prominent; prothorax subquadrate: elytra with striae entire, punctate, fourth

joining fifth at base; submarginal humeral carina short, weak; interstices lightly convex, eighth carinate at apex: prosternum with intercoxal part angustate (narrow, but not attenuate) anteriorly, sulcate on base; episterna very finely transversely striolate; anterior tibiae strongly 4-dentate. Ferruginous brown, legs testaceous.

Head with front and vertex depressed, finely but distinctly punctate; supra-antennal plates and wings of clypeus flat; clypeal elevation lightly raised, subtruncate (lightly rounded): clypeus not divided from front, depressed near anterior margin; median part with margin lightly rounded; wings short, wide, strongly advanced beyond median part, external angles rounded but a little marked; supra-antennal plates projecting strongly and sharply beyond wings of clypeus; eyes prominent, convex, very lightly enclosed. Prothorax subquadrate (1.8×1.8 mm.), very little narrowed anteriorly (ant. width 1.65 mm.); disc smooth; basal declivity rugulose; sides subparallel, hardly rounded or sinuate; posterior angles rounded, but lightly marked; anterior margin truncate; anterior angles rounded, not marked; border reflexed, passing round anterior angles; median and anterior lines well marked; lateral basal impressions rather long, deep, narrow, punctulate. Elytra wider than prothorax (3.8×2 mm.), parallel on sides, widely rounded at apex; base truncate towards sides, emarginate in middle; shoulders rounded, seventh stria entire, not interrupted at beginning of apical curve. Anterior femora short, wide

Length 7, breadth 2 mm.

Hab.: North-west Australia (two specimens sent by Mr. Masters); Queensland—Rockhampton (Putzeys; Coll. Castelnau).

The species on which the above description is founded agrees so well with Putzeys' description of *C. cava*, that I have little hesitation in regarding it as that species. The strongly 4-dentate anterior tibiae associate it with *C. boville*, Blkb., but the depressed head and the clypeus deeply truncate-emarginate, with wide wings isolate it from all other Australian species. I have not included it among the species of the "*australasie group*," but have felt unwilling to form a separate group for it, so have left it

in an intermediate position between the "*borilla*" and "*australasie groups*."

Australasie group.

Mandibles short; eyes prominent; clypeus with anterior margin emarginate, wings widely rounded, not divided from median part. Elytra with fourth and fifth striæ confluent at base; submarginal humeral carina well developed; eight interstice carinate near apex.

The "*australasie group*" may be divided into four sections as shown in the following table :—

- A. Prosternal episterna more or less rugulose-striolate, not punctate.
- B. Prosteraum with intercoxal part attenuate anteriorly, anterior tibiæ 4-dentate..... Section I. (Type *C. sellata*).
- BB. Prosternum with intercoxal part narrow anteriorly, anterior tibiæ with two strong external teeth and a slight prominence above apical projection..... Section II. (Type *C. australasie*).
- BBB. Prosternum with intercoxal part wide anteriorly, anterior tibiæ 3-dentate Section III. (Type *C. basalis*).
- AA. Prosternal episterna punctate..... Section IV. (Type *C. pectoralis*).

SECTION I.

Table of Species known to me.

- c. Bicolorous..... *C. sellata*, Putz.
- cc. Unicolorous.
- d. Anterior tibiæ 4-dentate..... *C. ferruginea*, Putz.
- dd. Anterior tibiæ 3-dentate.
- e. Black, convex, interstices of elytra convex..... *C. occulta*, Sl.
- ee. Testaceous, depressed; interstices of elytra flat (size very small) *C. nana*, Sl.

It appears as though *C. suturalis*, Putz., *C. verticalis*, Putz., *C. dimidiata*, Putz., and *C. aqualis*, Blkb., should be placed in this section.

CLIVINA SELLATA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 40; Ann. Soc. Ent. Belg. 1866, x. p. 186.

Head and prothorax black; elytra testaceous, with a large black patch on posterior part of disc; four posterior legs testaceous, anterior legs ferruginous; under surface piceous. Narrow, cylindrical. Front rugulose-punctate; vertex foveate in middle; clypeus with median part not divided from wings, lightly emarginate; clypeal elevation prominent, arcuate; a decided sinuosity between supra-antennal plates and wings of clypeus. Prothorax smooth (disc lightly transversely striolate and covered with scattered minute punctures), convex, rather longer than broad (1.35×1.25 mm.), lightly narrowed anteriorly (ant. width 1 mm.). Elytra convex, parallel (2.9×1.5 mm.), strongly punctate-striate; striae entire, fourth joining fifth at base; interstices convex, eighth distinct on apical curve; a submarginal carina at shoulder. Prosternum with intercoxal part attenuate anteriorly, transversely sulcate on base; episterna finely shagreened and transversely striolate. Anterior femora wide, compressed; tibiae 4-dentate (upper tooth a small triangular prominence).

Length 4.3-5.5, breadth 1.25-1.5 mm.

Hab. : Queensland—Gayndah (Masters); N.S. Wales—Richmond River, Tamworth, Sydney (Lea), Narrandera, Carrathool, Mulwala, Junee (Sloane); Victoria—Melbourne (Kershaw); South Australia (Masters).

The characteristic features of this widely distributed species are the 4-dentate tibiae, the attenuate intercoxal part of the prosternum, and the colour. Immature specimens are often taken of an entirely testaceous colour.

CLIVINA FERRUGINEA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 14.

“Ferruginea. Caput in vertice foveolatum, parce punctulatum. Prothorax subquadratus, antice leviter angustatus, convexus, utrinque in medio et in foveis basalibus oblongis

punctulatus. Elytra subcylindrica, basi truncata, humeris subrotundatis; striis integris punctatis, interstitio tertio quadri-punctato. Tibiæ anticæ apice longe digitatæ, extus bidigitatæ denticuloque superiore armatæ.

“Long. 6, El. 3, Lat. $1\frac{1}{2}$ mill.”

After the Latin diagnosis M. Putzeys has some remarks, of which the following is a translation:—

The epistoma roundly emarginate and closely united to the wings, which are rounded, classes the species very clearly among those of the twenty-seventh [*?* twenty-eighth] group.

It has a very great resemblance to *C. flava*, in which, however, the epistoma is quite differently shaped; but the colour of the elytra is the same as that of the head and prothorax; the prothorax is less quadrate, more elongate, decidedly more convex, the sides are less straight; the vertex is more convex, less punctate, and the anterior elevation is less distinctly separated by a transverse impression.

The episterna of the prothorax are hardly distinctly striolate on their internal part.

Hab.: Rockhampton (Coll. Castelnau).

Specimens sent to me by the Rev. T. Blackburn as coming from Cairns, North Queensland, agree with the description of *C. ferruginea*, except in the following points:—size a little smaller, prothorax smooth (a few very minute punctures are discernible in and near the lateral basal impression with a very powerful lens). The following brief diagnosis gives particulars of some characters not mentioned by Putzeys.

Narrow, cylindrical. Head with a light lateral sinuosity dividing the wings of the clypeus from the supra-antennal plates: prothorax as long as broad (1.25×1.25 mm.), very lightly narrowed anteriorly: elytra (3×1.35 mm.) with striæ entire, lightly punctate, fourth joining fifth at base, eighth interstice carinate at base and apex: prosternum with pectoral part protuberant; intercoxal part small, attenuate anteriorly, sulcate on base; episterna very finely rugulose and transversely striolate. Anterior

trochanters projecting beyond base of femora, these not dilatate on lower side; tibiæ 4-dentate.

Length 5.3, breadth 1.35 mm.

A specimen sent by Mr. Masters, as coming from N.W. Australia, cannot be separated from the specimens from Cairns.

CLIVINA OCCULTA, n.sp.

Narrow, convex. Head wide before eyes; prothorax narrow, convex; elytra strongly punctate-striate, fourth stria outturned and joining fifth at base; prosternum with intercoxal part small, attenuate anteriorly, sulcate on base; anterior tibiæ wide, strongly 3-dentate. Black, shining; antennæ ferruginous, legs reddish testaceous.

Head short, rather depressed, sparsely and coarsely punctate; vertex convex; frontal foveæ very wide; clypeus lightly declivous to anterior margin; median part truncate, not divided from wings; these oblique on inner side to median part, decidedly advanced beyond median part, widely and lightly rounded in front; supra-antennal plates wide, rounded externally, projecting lightly but decidedly beyond wings of clypeus; eyes prominent; orbits truncate behind. Prothorax small, narrow, hardly broader than long (1.4 × 1.42 mm.), a little narrowed to apex (ant. width 1.25 mm.), convex, strongly declivous to base; disc transversely striolate; sides widely and very lightly sinuate behind anterior marginal puncture; lateral basal impressions distinct, narrow, elongate-foveiform. Elytra narrow (3.25 × 1.65 mm.), widest behind middle, same width as prothorax at base, truncate on base; striæ strongly impressed, entire, coarsely punctate (the punctures stronger than usual towards apex), seventh stria entire; interstices convex, depressed towards apex, eighth shortly carinate at base.

Length 6.2, breadth 1.65 mm.

Hab.: Queensland—Cape York (Coll. Blackburn; a single specimen).

This species must be associated with *C. sellata*, Putz., though the form of its clypeus is more that of the "*obliquata group*" than of *C. sellata*. In general appearance it resembles *C. queenslandica*, Sl., and *C. dilutipes*, Putz.: from *C. queenslandica* it may be distinguished by its more convex shape; clypeus with median part more truncate, the wings wider, concave, more decidedly advanced beyond median part and roundly subtruncate; elytra with striæ more coarsely punctate; prosternum with intercoxal part attenuate: from *C. dilutipes* the wider and punctate anterior part of the head, the stronger external teeth of the anterior tibiæ, and the shape of the intercoxal part of the prosternum thoroughly differentiate it.

CLIVINA NANA, n.sp.

Small, depressed, parallel. Head wide, depressed; prothorax subquadrate; elytra lightly crenulate-striate, fourth stria joining fifth at base, interstices flat, eighth weakly carinate at base, finely and weakly carinate near apex; prosternum with intercoxal part narrow anteriorly; episterna minutely rugulose-striolate; anterior tibiæ wide, strongly 3-dentate. Testaceous, eyes black.

Head depressed; vertex roundly concave in middle; clypeal elevation well marked, lunulate: clypeus divided from front by a shallow depression, anterior margin subtruncate (hardly emarginate); wings small, not divided from median part, rounded laterally, divided from supra-antennal plates by a decided sinuosity; supra-antennal plates convex, prominent before eyes, extending obliquely backwards without interruption above eyes to form the wide facial carinæ; these reaching behind base of eyes; facial impressions wide, shallow, not sulciform; eyes depressed. Prothorax depressed, about as long as broad (0.75 × 0.8 mm.), very lightly narrowed anteriorly; disc obsoletely and minutely punctulate; sides roundly subparallel; basal curve short, lateral channel feebly marked; marginal punctures wide, shallow, the anterior distant from anterior angle, the posterior behind posterior

angle, not touching margin. Elytra very little wider than prothorax (2×0.9 mm.), depressed; sides parallel; base truncate.

Length 3.6, breadth 0.9 mm.

Hab. : N.S. Wales—Tamworth (Lea).

An isolated species among those known to me, and the smallest Australian *Clivina* yet described.

CLIVINA SUTURALIS, Putzeys.

Mém. Liège, 1863, xviii. p. 39; Stett. Ent. Zeit. 1866, xxvii. p. 40; Ann. Soc. Ent. Belg. 1866, x. p. 186.

“Nigra, nitida, ore, antennis pedibus elytrisque testaceo-ferrugineis; hisce plaga suturali nigra ornatis. Clypeus truncatus angulis elevatis prominulis. Vertex depressus, punctatus. Pronotum subelongato-quadratum, punctatum, basi utrinque longitudinaliter impressum. Elytra elongata subcylindrica, profunde punctato-striata. Tibiæ anticæ extus obtuse bidentatæ.”

“Long. 6, El. 3, Lat. $1\frac{1}{3}$ mm.”

M. Putzeys added to his Latin diagnosis a fuller description in French; the following is a translation of the more salient parts:—

The epistoma is almost truncate, bordered; its angles project in the form of prominent teeth; the wings are hardly distinct from the supra-antennal margins. The vertex is flattened in the middle, irregularly foveolate and punctate; the longitudinal carinæ of the sides of the head are very distinct and straight; they do not become broader towards their source.

The prothorax is a little longer than broad; its sides are parallel; the anterior angles are lightly rounded and very declivous; the posterior angles are only marked by the interruption of the marginal border and by a piliferous puncture placed within it; all the surface (except the margins) is covered with rather large punctures, which are stronger and more numerous on the sides near the basal foveæ; these are oblong, rather wide, but shallow.

The elytra are of the same width as the prothorax, elongate; their sides are almost parallel; the base appears truncate and the

apex is rounded; they are strongly punctate-striate. The scutellar striae are oblique and short. The suture is occupied by a stripe of brown-black which, at the base, covers the first interstice, and becomes wider after the basal fourth without extending beyond the third interstice.

Hab. : Australia—Port Phillip; (one specimen).

In his "Révision Générale" the following is all that is said of this species :—

In a great many respects it comes very near *C. verticalis*; the prothorax has the same form, but it is less convex, longer and still more enlarged behind the anterior angles; it is covered with a very distinct puncturation. The epistoma has the external angle of its wings more marked, simply obtuse, and the wings are not separated from the posterior wings. The anterior elevation is less marked, the vertex has only some scattered punctures anteriorly. All the external teeth of the tibiae are obliterated, which may well be only accidental.

Length 5, El. $2\frac{1}{2}$, breadth $1\frac{1}{2}$ mm.

In spite of M. Putzeys' having placed *C. suturalis* in a section in which the fourth stria joined the fifth at the base,* I cannot help a suspicion that it did not do so, and that *C. suturalis* was founded on the same species that Mr. Blackburn has since named *C. dorsalis*.† The difference in the dimensions given in Putzeys' two descriptions, apparently founded on the same specimen, and the absence of any comment thereon are unsatisfactory.

CLIVINA VERTICALIS, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 40; Ann. Soc. Ent. Belg. 1866, x. p. 186.

The following is a translation of M. Putzeys' whole description:—

It differs from the preceding [*C. sellata*] by its wholly testaceous colour, a little darker on the head and prothorax, the suture

* He placed *C. planiceps* in the same section, *vide ante*, p. 173.

† *Vide* description of *C. dorsalis*, *ante*, p. 169.

is slightly brownish. The decided difference is found in the shape of the prothorax, which is almost square, as broad before as behind; the lateral margin is a little sinuate before the anterior angle. The elytra are more cylindrical, not at all narrowed behind. In all other respects it resembles *C. sellata*.

Length $5\frac{1}{4}$, El. $2\frac{2}{3}$, breadth $1\frac{1}{2}$ mm.

Australia—(Coll. Chaudoir; two specimens).

I have an immature specimen of *C. dorsalis*, Blkb., from Victoria, which is wholly testaceous in colour, and I cannot help suspecting that *C. verticalis* has been founded on immature specimens and is in reality conspecific with *C. dorsalis*. In support of this suspicion it may be noted that the characters of the basal striæ of the elytra do not appear to have been taken into account by M. Putzeys at the time he described *C. verticalis*; under the circumstances there is nothing for it but to retain both names, but, if I am right in my suspicion as to their identity, a want of carefulness on the part of M. Putzeys has saddled the Australian list with at least one name for which no species is likely to be found in nature.

CLIVINA DIMIDIATA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 39; Ann. Soc. Ent. Belg. 1866, x. p. 185.

The disposition of the colours is almost the same as in *C. basalis*, but the black part is not so large, very oblique from the lateral margin to the suture where it is prolonged beyond the middle of the elytra; the anterior colour instead of being a dull red is a light reddish testaceous; the legs and antennæ are also of a clearer tint. The eyes are less prominent; the prothorax is less narrowed in front, and less emarginate in the middle of the anterior margin; the elytra are shorter and narrower.

Length 7, El. 3.5, breadth $1\frac{7}{8}$ mm.

Australia—Melbourne (?) (Coll. Chaudoir; two specimens).

In addition we learn from the Révision Générale (p. 183) that the central carina of the prosternum is very narrow in *C. dimidiata*. It must greatly resemble *C. melanopyga*, Putz., and

indeed on account of its having the intercoxal part of the prosternum very narrow, and from the fact that M. Putzeys in his memoir in the *Entomologische Zeitung* placed *C. melanopyga* in the same group as *C. basalis*, taking no notice of the basal characters of the striæ of the elytra, I suspect that it is not unlikely to have been founded on specimens of *C. melanopyga*, which, probably chiefly on account of their larger size, had been taken to belong to a distinct species.

SECTION II.

Table of Species.

f. Unicolorous.

g. Size large..... *C. australasie*, Bohem.

g.g. Size small..... *C. queenslandica*, Sl.

ff. Bicolorous.

h. Black, with apex of elytra reddish..... *C. leai*, Sl.

hh. Elytra black, with a reddish vitta on each
side *C. vittata*, Sl.

The species I do not know are *C. juvenis*, Putz., and *C. helmsi*; Blkb.

CLIVINA AUSTRALASÆ, Bohemann.

Res. Eugen. Coleoptera, 1858, p. 8.

Robust. Head wide, punctulate on each side at posterior extremity of facial carinæ; prothorax not longer than wide, decidedly narrowed anteriorly (ant. width 2.15 mm.); elytra strongly punctate-striate, fourth stria outturned and joining fifth at base, interstices convex, eighth carinate at base and apex; anterior tibiæ strongly 3-dentate (hardly 4-dentate); inner apical spine (♂) not obtuse at apex. Black, antennæ, tibiæ and tarsi piceous.

Head large, wide before eyes, obliquely angustate, with a well marked sinuosity between supra-antennal plates and wings of clypeus; front and vertex rather depressed: clypeus obsoletely divided from front; anterior elevation arcuate; anterior margin wide, lightly and roundly emarginate; wings wide, concave,

rounded, not divided from median part; supra-antennal plates broad, widely depressed near clypeus; facial sulci deep, parallel posteriorly. Prothorax lightly convex, of nearly equal length and breadth (2.55×2.6 mm.); anterior angles rounded, bordered, lateral basal impressions obsolete, or very faint. Elytra long, parallel (6×2.8 mm.), lightly convex: dorsal surface rather depressed; base truncate; marginal channel wide at humeral angle; striae deep and strongly punctate on disc, becoming faint and finely punctate towards apex; interstices convex, except on apical declivity. Prosternum with intercoxal part narrow anteriorly, sulcate on base; episterna closely rugulose. Anterior tibiae strongly 3-dentate, a sinuosity above upper large tooth causing a fourth tooth to be weakly developed. ♂ with anterior tibiae hardly less strongly dentate than ♀; the inner apical spine longer and more curved, but not obtuse at apex.

Length 8-10.5, breadth 2.4-2.8 mm.

Hab.: N.S. Wales, Victoria, and South Australia (widely distributed); Lord Howe Island (Macleay Museum); New Zealand (Broun).

The description given above is founded on specimens sent to me by Mr. Lea, and taken by him at Windsor, near Sydney; the form found on the Murray and Murrumbidgee Rivers seems to vary a little from the typical form, being a lighter and more convex insect, but I cannot find any differences between them that are worth considering of even varietal value. The original description seems inexact in giving the shape of the prothorax as "*latitudine dimidio longior*," and the elytra, "*prothorace haud latiora*." Sometimes the anterior part of the front is densely punctate, and often the punctures that are always present on the sides of the occiput, near the facial carinae, extend across the occiput. Specimens of *C. australasiae* from Lord Howe Island are in the Macleay Museum; they are probably identical with the species considered *C. vagans* by the late Mr. A. S. Olliff (Mem. Aust. Mus. 1889). A specimen (♂) sent to me many years ago, from New Zealand by Capt. Thos. Broun, under the name of

C. rugithorax, Putz., in no way differs from *C. australasiae*, so it appears as if *C. rugithorax* should be regarded as a synonym of *C. australasiae*.

Specimens only 8 mm. in length are rarely found.

CLIVINA JUVENIS, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 37; Ann. Soc. Ent. Belg. 1866, x. p. 183.

Subjoined is a translation of Putzeys' entire description. It seems quite useless as a means of identifying any species, and appears to be founded on an immature specimen. The question of whether, in spite of the differences given as distinguishing it from *C. australasiae*, it may not be that species, I leave for him who can to decide.

Entirely of a slightly reddish testaceous colour. Behind the anterior elevation of the front a wide deep impression is noticed. The impression of the vertex is short and less marked [than in *C. australasiae*]. The prothorax is narrower, its anterior angles are less rounded; the elytra are a little shorter; the teeth of the tibiæ are finer.

Length 8, El. 4, breadth 2 mm.

Hab. : Melbourne (Coll. Chaudoir).

In addition to the particulars given above we learn from the Révision Générale that the base of the elytra is more distinctly truncate than in *C. australasiae*.

CLIVINA QUEENSLANDICA, n.sp.

Form light, rather depressed. Head wide, lightly punctate on vertex; prothorax depressed; elytra lightly striate, fourth stria joining fifth at base; prosternum with intercoxal part rather wide in front; anterior tibiæ strongly 3-dentate. Black, shining (prothorax sometimes piceous black); legs piceous red, the four posterior lighter coloured than the anterior.

Head wide, subdepressed; front lightly punctate: clypeus not divided from front, lightly and widely emarginate, a wide

depressed rugulose space along anterior margin; wings small, rounded, not divided from median part; clypeal elevation depressed, widely arcuate; a light sinuosity dividing wings from supra-antennal plates; facial sulci lightly impressed, wide apart, parallel posteriorly; facial carinæ wide, depressed. Prothorax levigate, subquadrate (1.7×1.7 mm.), narrowed anteriorly (ant. width 1.3 mm.); sides lightly rounded; lateral basal impressions distinct, short, narrow. Elytra a little depressed, very little wider than prothorax (3.5×1.8 mm.), very little narrowed to base; sides subparallel; shoulders rounded; striæ entire, lightly impressed, finely crenulate; interstices lightly convex on disc, eighth carinate at base and apex. Prosternum with base sulcate; episterna rugulose and transversely striolate. Anterior tibiæ strongly 3-dentate, with a feeble projection above large teeth. ♂ with inner apical spine long, arcuate.

Length 6.2-7; breadth 1.65-1.9 mm.

Hab.: Queensland—Darling Downs District (Lau); South Australia—Lake Callabonna (Zietz).

This species is allied by the form of the anterior tibiæ in the ♂, and the shape of the head to *C. australasica*, Bohem, rather than to those species which resemble *C. lepida*, Putz., in these respects, as *C. vagans*, Putz., and *C. dilutipes*, Putz. It is very like *C. dilutipes* in general appearance, but may be distinguished by having the head wider and punctate, eyes less prominent, prothorax more depressed, elytral striæ more finely punctate, prosternum sulcate on base, external teeth of anterior tibiæ stronger; it has even a closer resemblance to *C. occulta*, Sl., but differs in shape of clypeus, shape of prothorax, prosternum with the intercoxal part wider anteriorly, &c.

CLIVINA LEAI, n.sp.

Narrow, convex. Head depressed, wide before eyes; prothorax of equal length and breadth, decidedly narrowed anteriorly; elytra strongly punctate-striate, fourth stria outturned and joining fifth at base, a fine submarginal carina at shoulder; anterior tibiæ

strongly 3-dentate. Black; elytra with apical third testaceous red, under surface piceous; anterior legs piceous brown, four posterior legs testaceous.

Head wide before eyes (1.2 mm. \times 1.2 mm.), vertex with a few shallow rugæ, not punctate except finely on each side near extremity of facial carinæ: clypeus not divided from front, lightly and widely emarginate, anterior angles (wings) widely rounded; median part depressed, bordered, defined on each side by a short, narrow, longitudinal ridge; wings small, concave; clypeal elevation distinct, arcuate; supra-antennal plates rather depressed, large, wide, strongly rounded and bordered externally, projecting sharply and decidedly beyond wings of clypeus; facial sulci lightly impressed, facial carinæ short, wide; eyes convex, projecting slightly, deeply enclosed by supra-antennal plates in front, lightly enclosed behind; orbits abruptly constricted behind. Prothorax smooth (a few transverse striolæ on disc), as long as broad (1.8 mm. \times 1.8 mm.), widest a little before posterior angles, decidedly narrowed anteriorly (ant. width 1.5 mm.), basal curve short; border rather wide on anterior part of sides, median and anterior lines well marked; lateral basal impressions short, distinct. Elytra convex, very declivous on sides, widest a little behind middle (4 \times 2.1 mm.), a little narrowed to base; sides lightly rounded; base shortly truncate in middle, rounded on each side; humeral angles not marked; striæ deeply impressed on basal two-thirds, becoming faint towards apex, closely punctate; the punctures strong towards base, weaker towards apex. Prosternum with intercoxal part narrow (not attenuate) anteriorly, transversely sulcate on base; episterna finely rugulose and transversely striolate.

Length 7.7.5, breadth 2.1 mm.

Hab.: Queensland—Pine Mountain (Masters); N.S. Wales—Clarence River (Lea); Central Australia (Horn Scientific Expedition).

The colour of the elytra, with the whole apical part testaceous red from just behind the third puncture of the third interstice,

distinguishes this elegant species, which was first sent to me by Mr. A. M. Lea, after whom I have named it.

Var. ? *C. apicalis*. A specimen sent to me by Mr. Masters, as coming from N.W. Australia, differs from the type form of *C. leai* by being smaller; the head smooth; the prothorax a little shorter (1.5×1.6 mm.), more convex, more rounded on the sides, the lateral basal impressions obsolete; the striae of the elytra deeper and more strongly punctate.

Length 6, breadth 1.7 mm.

It is probably a distinct species, but requires studying with a number of specimens before one; its general resemblance to *C. bipagiata*, Putz., is very noticeable.

CLIVINA VITTATA, n.sp.

Robust, convex. Front punctate-foveate; prothorax convex, broader than long (1.35×1.45 mm.), lightly narrowed anteriorly (ant. width 1.15 mm.). Elytra rounded on sides, widest behind middle, a little narrowed to base ($3 \text{ mm.} \times 1.6$ mm.), strongly punctate-striate; interstices convex, eighth narrowly carinate at base, and on apical curve. Prosternum with intercoxal part narrow (not attenuate) anteriorly, sulcate on base; episterna finely rugulose-striolate. Anterior femora wide; tibiae 4-dentate, the upper tooth very feeble. Piceous black; a reddish lateral vitta (interstices 5-7) on each elytron, not reaching apex; legs reddish piceous.

Length 5.3, breadth 1.6 mm.

Hab.: N. S. Wales—Sydney (one specimen sent by Mr. Masters).

A second specimen, labelled Victoria, is in the collection of the Rev. Thos. Blackburn, who has kindly forwarded it to me for examination; it is smaller (4.3×1.2 mm.), and has the prothorax piceous red, but otherwise agrees with the type.

This species is allied to *C. sellata*, Putz., but, besides being differently coloured, it differs by its wider and more convex form; wider prothorax; elytra less parallel, more rounded on the

CLIVINA BASALIS, Chaudoir.

Bull. Mosc. 1843, iv. p. 733; Putzeys, Mém. Liège, 1863, xviii. p. 38.

Black, base of elytra red (the red part about one-third of elytra in middle of disc and sloping backwards to half the length on each side); legs reddish testaceous. Head smooth, convex, angustate with hardly a perceptible sinuosity on each side before eyes; clypeus not divided from front, anterior margin bordered, widely emarginate, anterior angles rounded. Prothorax convex, smooth, of almost equal length and breadth (1.8×1.7 mm.), narrowed anteriorly (ant. width 1.5 mm.); sides lightly rounded; basal curve short; lateral basal impressions well marked. Elytra lightly convex, a little depressed on disc, lightly rounded on sides, not perceptibly narrowed to base (4×2 mm.), strongly punctate-striate; the striae entire, but weaker towards apex, fourth out-turned and joining fifth at base; five inner interstices convex towards base, becoming flat towards apex, eighth distinctly marked on apical curve; a submarginal carina at shoulder. Prosternum with intercoxal part wide anteriorly, transverse sulcus of base obsolete. Anterior tibiae 3-dentate: in ♂ narrow, first external tooth strong, short, second shorter, projecting but little beyond margin of tibia; inner apical spine elongate, curved and obtuse at apex: in ♀ external teeth much stronger; inner apical spine slender and acute.

Length 5.75-7, breadth 1.6-2 mm.

Hab. : N.S. Wales - Sydney, Tamworth (Lea), Junee, Narrandera, Urana, and Mulwala (Sloane); Victoria; South Australia.

A well known and easily identified species.

CLIVINA FELIX, n.sp.

Head and prothorax black; elytra reddish testaceous, with a large ovate black plaga on the posterior two-thirds of disc (not reaching margin), lateral margins and under surface piceous; legs,

antennæ, and palpi testaceous. Facies, head, prothorax, elytra, prosternum, and legs as in *C. basalis*, Chaud.

Length 6·7, breadth 1·5-1·9 mm.

Hab.: Queensland—Port Denison (Masters); N. S. Wales—Juneë, Narrandera, Carrathool, Urana, and Mulwala (Sloane); Victoria; South Australia (Blackburn).

This species is rather common in Southern Riverina during the summer months. It resembles *C. basalis* so closely that it may be taken for it at a casual glance, but the colour differentiates it, the black discoidal patch of the elytra in *C. felix* never reaches the margins (as it does in *C. basalis*), but is separated by the testaceous seventh and eighth interstices; on the average it is smaller than *C. basalis*; the only specimens more than 6·5 mm. in length that I have seen have been those from Port Denison. A specimen from Narrandera has the base of the elytra clouded with black. From *C. sellata*, Putz., it differs by its larger size, less cylindrical shape, smooth head, intercoxal part of prosternum not attenuate anteriorly, anterior tibiæ 3-dentate, &c.

CLIVINA EXIMIA, n.sp.

Robust, broad, lightly convex. Head as in *C. basalis*, Ch.: prothorax broader than long, basal curve short, lateral basal impressions strongly marked; elytra wide, parallel, truncate at base, punctate-striate, fourth stria outturned and joining fifth at base, interstices convex, eighth carinate at base and apex; anterior tibiæ 3-dentate, with a small protuberance above upper tooth. Head, prothorax, and a large dorsal plaga on elytra black; base (widely), sides, and apex of elytra reddish; under surface reddish or reddish piceous; antennæ, mouth parts, and four posterior legs testaceous, anterior legs reddish.

Head convex, smooth (vertex and front covered with minute punctures); lateral impressions light: clypeus not divided from front, wide anteriorly, and very lightly emarginate; wings small, rounded, not divided from median part; eyes convex, prominent, very lightly enclosed behind. Prothorax transverse

(1.8 × 2 mm.), lightly narrowed anteriorly (ant. width 1.7 mm.), convex, declivous to base, finely transversely striolate; sides hardly rounded (nearly straight); posterior angles rounded but marked; anterior margin lightly and widely emarginate; anterior angles obtuse, lightly marked; border narrow, not weaker on sides of basal curve; median and anterior lines strongly impressed; lateral basal impressions short, deep, narrow. Elytra wide (4.5 × 2.4 mm.), lightly convex, subdepressed on disc, shortly declivous to peduncle; base truncate (a little roundly); shoulders rounded; striae deep, strongly crenulate, becoming lighter towards apex, first stria curving in towards suture a little before base and turning out towards second at basal extremity; interstices convex, depressed posteriorly. Prosternum protuberant; intercoxal part wide anteriorly, sulcate on base; episterna strongly rugulose and transversely striolate.

Length 8, breadth 2.4 mm.

Hab.—North West Australia. (Two specimens sent by Mr. Masters.)

Closely allied to and resembling *C. felix*, Sl., in colour, but larger, wider, and more depressed. The discoidal black patch on the elytra is oval, and extends in its widest part over the four or five inner interstices.

CLIVINA MICRODON, Putzeys.

Ann. Soc. Ent. Belg. 1866, x. p. 183

Of a slightly duller testaceous colour than *C. juvenis*, the last half of the elytra even more obscure than the base. The antennae are more slender. The anterior elevation of the head is not declivous and narrowed behind as in *C. juvenis*, where it has the shape of a horseshoe; the vertex has not a central fovea; the prothorax is a little flatter, wider, and the impressions of the base are more marked and rounded towards base. The anterior tibiae have only two, very short and triangular teeth above the apical digitation.

Length 7, El. $3\frac{3}{4}$, breadth $1\frac{3}{4}$ mm.

Hab.: Melbourne (Coll. Chaudoir; two specimens.)

The above is a translation of the whole of Putzeys' description of *C. microdon*. I cannot help thinking that it looks not unlike a description founded on an immature specimen of *C. basalis*, Ch., ($\text{\textcircled{J}}$), discoloured with age.

CLIVINA DILUTIPES, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 12.

It appears to me likely that M. Putzeys confused two species under this name, viz., the Victorian species which I consider *C. vagans*, Putz., and a species from the coastal districts between Sydney and Brisbane, to which I attribute the name *C. dilutipes*. It is to be regretted that M. Putzeys gave no indication of the differences which divided *C. dilutipes* from *C. vagans*, for it seems not unlikely that both may have been founded on the same species; however, as there appear to be two closely allied species, to either of which either name seems equally applicable, it is probably best to apply the older name, *C. vagans*, to the species which it strikes me as being most fitted to, and then to allot the later name to the remaining species. The resemblance between these two species is very great, the only points of difference apparent to me being that, in *C. dilutipes* the elytra are more deeply striate, with coarser punctures in the striae, and the prosternum is not sulcate on the base. The following is a description of *C. dilutipes*:—

Narrow, cylindrical. Head small, smooth, lightly bi-impressed; prothorax convex, sides rounded; elytra narrow, strongly punctate-striate, fourth stria joining fifth at base; prosternum with intercoxal part wide anteriorly, non-sulcate on base; anterior tibiae lightly 3-dentate. Black (sixth and seventh interstices sometimes piceous red on anterior third), legs piceous (four posterior often testaceous).

Head small, narrowly angustate before eyes; front and vertex lightly convex between facial sulci; clypeus not divided from front, roundly emarginate; facial sulci lightly impressed, subparallel, hardly divergent posteriorly; eyes convex, enclosed behind. Prothorax as broad as long (1.75 × 1.75 mm.), convex,

narrowed anteriorly (ant. width 1.35 mm.); lateral basal impressions short, linear, well marked. Elytra narrow (4×1.9 mm.), widest a little behind middle; sides subparallel, hardly narrowed to shoulders; base truncate; shoulders rounded, not marked; striae strongly impressed, deeply punctate, lighter towards apex; interstices convex near base, depressed behind basal third, eighth finely carinate at base and near apex.

Length 6.5-7.5, breadth 1.8-2.2 mm.

Hab.: N. S. Wales—Windsor, Clarence River, and Tweed River (Lea); Queensland—Brisbane (Coates).

The specimens from the Tweed River and Brisbane are darker coloured and have a greater tendency to lose the piceous red patch on the anterior part of the sides than those from the Clarence River.

CLIVINA ANGUSTIPES, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 12.

Narrow, elongate. Black; legs dark piceous; antennæ, palpi, and tarsi ferruginous. Head small, smooth, convex, narrow, angustate without any sinuosity before eyes; clypeus bordered, roundly emarginate; frontal impressions arcuate, deep; eyes convex, prominent. Prothorax longer than broad (1.75×1.7 mm.), greatly narrowed anteriorly (ant. width 1.4 mm.), lightly rounded on sides, smooth, convex; anterior angles obtuse; median line lightly impressed; anterior line strongly impressed; lateral basal impressions short, linear, distinct. Elytra a little broader than prothorax (3.8×2 mm.), lightly convex, parallel on sides; base truncate; shoulders rounded; striae moderate, becoming shallow towards apex, strongly punctate (the punctures very fine towards apex), first flexuous near base, fourth outturned and joining fifth at base; interstices lightly convex near base, depressed towards apex, eighth carinate near shoulders, narrowly carinate on apical curve. Prosternum without pectoral ridges; intercoxal part wide at base, angustate but remaining wide anteriorly, transverse sulcus of base lightly marked, sometimes obsolete; episterna rugulose and transversely striolate. Anterior tibiæ narrow,

3-dentate; apical digitation long, lightly arcuate; external teeth short, prominent; inner apical spine as long as apical digitation, truncate, not incrassate.

Length 6.5-7.5, breadth 1.9-2.2 mm.

Hab.: West Australia—Swan River, Newcastle, and Donnybrook (Lea).

Very closely allied to *C. lepida*, Putz., with which it agrees in facies; the head is similar, the prothorax seems a little narrower and longer, the elytra present no differences. The reasons for regarding it as distinct from *C. lepida* are that the prosternum is without pectoral ridges, and not so decidedly (if at all) transversely sulcate on base; and, that the anterior tibiæ differ slightly, their external teeth being longer and more prominent, the apical digitation longer and less obtuse, and the inner apical spine not incrassate at apex.

CLIVINA SIMULANS, n.sp.

Robust, elongate, parallel, subcylindrical. Head smooth; prothorax as long as broad, narrowed anteriorly; elytra with fourth stria outturned and joining fifth at base, eighth interstice shortly subcarinate at base, narrowly carinate near apex; anterior tibiæ 3-dentate, ♂ with external teeth much weaker than ♀, and with inner apical spine long, incrassate, obtuse. Black, shining; anterior legs piceous brown; antennæ and four posterior legs ferruginous.

Head smooth, strongly roundly angustate before eyes; the lateral sinuosity between the wings of clypeus and supra-antennal plates hardly perceptible; front and vertex convex, lævigata: clypeus not divided from front; a wide depressed space near anterior margin; clypeal elevation raised, lunulate; anterior margin roundly emarginate; wings not divided from median part, small, external angles rounded. Prothorax convex, almost equal in length and breadth (2.48 × 2.5 mm.), narrowed anteriorly (ant. width 2mm.); lateral basal impressions elongate, decidedly impressed. Elytra truncate-oval (5.9 mm. × 2.8 mm.), convex; sides parallel: striæ strongly impressed, crenulate-punctate; interstices convex on disc, depressed towards apex, seventh and eighth uniting at

base to form a short humeral carina; marginal channel narrowed at humeral angles. Prosternum with pectoral part protuberant; intercoxal part wide anteriorly, non-sulcate on base; episterna overhanging anteriorly, minutely rugulose and finely transversely striolate.

Length 9·3-10·5, breadth 2·7-2·8 mm.

Hab.: N.S. Wales—Urana District (Sloane; common on the edge of the more permanent creeks and swamps).

This species resembles *C. australasie*, Bohem., so closely that it is impossible to distinguish them except by a close scrutiny. The head is smoother, it is not punctate as is always the case in more or less degree with *C. australasie*; the sinuosity between the supra-antennal plates and the wings of the clypeus is less marked; the antennæ are a little lighter and slightly less incrassate; the supra-antennal plates diverge from the head more gently before the eyes; the prothorax is more convex, more strongly narrowed in front, the lateral basal impressions more distinct; the elytra are more convex, the sides being more declivous from the fifth stria to the margin, the basal declivity is greater, the striae a little more distinctly crenulate, the sub-marginal humeral carina shorter and less developed; the base of the prosternum is not sulcate, and the wavy rugulosity of the episterna is finer; the external teeth of the anterior tibiæ are weaker in both sexes (especially in ♂), the upper being smaller and less outturned, the upper internal spine is longer, straighter, more acute, the apical spine is lighter in both sexes, and in ♂ is obtuse at the apex (in *C. australasie*, though the inner apical spine is longer in ♂ than in ♀, it is bent and pointed at the apex).

CLIVINA VAGANS, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 38; Ann. Soc. Ent. Belg. 1866, x. p. 185.

Narrow, convex. Head small, smooth; prothorax smooth, rather longer than broad; elytra narrow; prosternum with strong pectoral ridges, intercoxal part wide anteriorly, sulcate on base. Coal black, shining; legs black, four posterior tibiæ piceous.

♂. Head small, smooth; front and vertex lightly convex; clypeus not divided from front, lightly emarginate, wings not divided from median part; supra-antennal plates narrow, not divided from wings of clypeus by a lateral sinuosity; frontal foveæ small, shallow; facial sulci lightly impressed, diverging lightly backwards; facial carinæ wide, depressed; eyes not prominent. Prothorax a little longer than broad (2×1.9 mm.), evenly convex, narrowed anteriorly (ant. width 1.6 mm.); anterior angles lightly rounded, lateral basal impressions shallow, elongate, minutely punctate; median and anterior lines distinctly impressed. Elytra convex (4×2.2 mm.); sides lightly rounded, a little narrowed to base; shoulders rounded; base truncate; lateral channel narrow at humeral angles; striæ lightly impressed, finely punctate, first entire, others (excepting seventh) becoming obsolete on apical declivity; interstices lightly convex near base, flat on apical half, seventh carinate at base, eighth narrowly carinate near apex. Prosternum with pectoral part flat, margined by strong carinæ, these oblique, but becoming parallel at anterior extremity; episterna finely rugulose and transversely striolate. Anterior tibiae narrow; the apical projection short and but little outturned; the external teeth feebly developed, the upper not projecting beyond edge of tibiae; inner apical spine very long, curved, obtuse at apex.

♀. Anterior tibiae wider, with strong external teeth, the upper lightly prominent; prosternum with pectoral ridges shorter and more feebly developed.

Length 6.5-7.75, breadth 1.8-2.2 mm.

Hab. : Victoria—Lillydale (Sloane).

It appears to me that this must be *C. vagans*, Putz.; it certainly should be the species he mentions as from Melbourne, at the end of his description; if so, the type specimen was a very small one, though one equally small has been sent to me by Mr. Blackburn. It is very closely allied to *C. lepida*, Putz., of which it seems the Victorian representative; the more convex and less parallel elytra seem the most decided character distinguishing it from *C. lepida*. The black legs seem characteristic of the typical form of *C. vagans*,

but specimens sent me from Swan Hill by Mr. C. French have the four posterior legs testaceous. The black species allied to *C. lepida* require careful study with large series of freshly collected specimens from many different localities.

CLIVINA LEPIDA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 38; Ann. Soc. Ent. Belg. 1866, x. p. 184.

Narrow, parallel. Head small, smooth; prothorax convex, not broader than long, decidedly narrowed anteriorly (ant. width 1·7 mm.); elytra parallel on sides, punctate-striate, fourth stria out-turned and joining fifth at base. Prosternum with intercoxal part wide anteriorly, sulcate on base; anterior tibiæ 3-dentate; ♂ with teeth of the anterior tibiæ much weaker than in ♀, and with the inner apical spine stout, curved and obtuse at apex. Black, shining; four posterior legs testaceous red, anterior legs piceous.

Head narrow, obliquely angustate, with hardly any trace of a lateral sinuosity on each side behind wings of clypeus, convex and smooth between facial impressions; clypeus not divided from front, anterior margin roundly emarginate, wings small, not divided from median part. Prothorax rather longer than broad (2·2 × 2·15 mm.), sides lightly rounded, not sinuate behind anterior angles; anterior margin lightly emarginate behind neck; anterior angles obtusely rounded; median and anterior lines well marked; lateral basal impressions distinct, linear. Elytra very little wider than prothorax (4·5 mm. × 2·3 mm.), lightly convex; sides parallel, not perceptibly narrowed to shoulders; base truncate; shoulders rounded; apical declivity lightly declivous; striæ more strongly marked and punctate on disc than towards apex; interstices convex towards base, depressed towards apex, seventh shortly carinate at base, eighth finely carinate near apex; lateral border narrow, hardly perceptibly wider posteriorly. Prosternum with pectoral ridges strongly developed; episterna finely rugulose and

transversely striolate. Anterior femora dilatate, upper side very arcuate.

Length 7·8·5, breadth 2·1·2·3 mm.

Hab.: N.S. Wales—Windsor (Lea); New Zealand (Broun).

This species is readily separated from *C. australasice*, Bohem., by its smooth head, narrower before eyes, by the weaker external teeth of the anterior tibiae in both sexes (the fourth tooth is quite obsolete); and by the ♂ having the inner apical spine more curved and obtuse at apex. A specimen sent to me from New Zealand by Capt. T. Broun, under the name of *C. rugithorax*, Putz., is identical in every respect with the ♂ of *C. lepida*; it seems to have been confused with *C. australasice* by New Zealand coleopterists. I believe *C. lepida* is also found in Victoria and South Australia.

Var. ? *C. tasmaniensis*, Sl. Coal black, shining, legs black. Differing from *C. lepida* by its darker colour; more convex form; prothorax with lateral basal impressions feebly developed, shallow, short; elytra less parallel, more rounded on sides, striae less strongly impressed.

Length 7·2·8, breadth 1·9·2·2 mm.

Hab.: Tasmania (sent to me by Mr. A. M. Lea, as from Tasmania).

It requires further study and comparison with *C. vagans*, Putz.; it is doubtless the species that Mr. Bates considered *C. vagans* (Cist. Ent. ii. 1878).

CLIVINA SYDNEYENSIS, n.sp.

Robust, convex. Head small; frontal sulci diverging backwards; prothorax of equal length and breadth; elytra oval, narrowed to base, fourth stria outturned and joining fifth at base; anterior tibiae 3-dentate; the external teeth much weaker and the inner apical spine longer (obtuse) in ♂ than in ♀. Black; legs piceous red, anterior darker than four posterior.

Head small, smooth, narrow, convex; clypeus not divided from front, roundly emarginate; eyes not prominent. Prothorax convex, of equal length and breadth (1·9 × 1·9 mm.), decidedly narrowed anteriorly (ant. width 1·6 mm.); anterior angles lightly

marked, obtuse; anterior margin lightly emarginate; lateral basal impressions shallow, linear (sometimes obsolete). Elytra oval (4×2.1 mm), convex, widest behind middle; sides rounded, decidedly narrowed to base; shoulders not marked; base rounded; striae narrow, deep on disc, lighter towards apex; their puncturation fine, dense; interstices narrow, convex towards base, eighth finely carinate near apex, a short distinct submarginal carina at shoulder. Prosternum with intercoxal part wide anteriorly, sulcate on base; pectoral ridges well developed.

Length 6.5-8, breadth 1.8-2.2 mm.

Hab. : N.S. Wales—Sydney District (Sloane, Lea).

Very closely allied to *C. lepida*, Putz., but evidently a distinct species. The marked character distinguishing them is the shape of the elytra. In *C. sydneyensis* the elytra are more convex, more deeply and abruptly declivous on base, sides, and apex, the sides are greatly rounded and strongly narrowed to the base, the interstices are narrower and more convex, the fourth being much narrower at the base, the lateral border is wider on the sides, except near the shoulders. From *C. dilutipes*, Putz., which it resembles, it may be distinguished by the more rounded sides of the elytra, and by the presence of a sulcus on the base of the prosternum. From *C. vagans*, Putz., it is separated by the stronger striae and more convex interstices of the elytra, &c. It appears to be one of the commonest species of *Clivina* in the neighbourhood of Sydney.

CLIVINA RUBRIPES, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 13.

The following is a translation of Putzeys' entire note (it cannot be called a description) on this species:—

A little smaller than *C. lepida*. Very distinct by its legs entirely of a red testaceous colour; its prothorax wider, flatter, shorter, nearly quite square, scarcely a little narrowed to the anterior angles, which are a little more rounded; its elytra longer, and its shoulders more marked.

Length 8, El. $4\frac{1}{4}$, breadth $1\frac{3}{4}$ mm.

Hab. : Rockhampton (Coll. Castelnau).

CLIVINA ISOGONA, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 13.

“Fusca, elytris pedibusque 4 posticis fusco-testaceis. Clypeus vix emarginatus; vertex in medio oblonge profunde foveolatus et antice parum punctatus. Prothorax quadratus parum convexus, sulco medio profundo, transversim undulatus neque punctatus. Elytra cylindrica, basi truncata, humeris rotundatis, profunde punctato-striata. Tibiæ anticæ apice digitatæ, extus unidigitatæ, denticuloque superiore vix perspicuo armatæ.

“Long. 8, El. $3\frac{1}{2}$ *, Lat. $1\frac{3}{4}$ mm.”

I translate the remarks which follow, as under:—By its size and general appearance it comes near *C. rubripes*, but the elytra are a little longer and the shoulders less rounded; the prothorax is shorter, still less narrowed in front, a little less convex; the median line is more deeply impressed and the surface bears much more distinct undulate striæ; the two impressions of the base are less marked.

The vertex bears in the centre a deep oblong fovea which is preceded by some large scattered punctures. The epistoma is much less emarginate and more strongly bordered in the middle; the antennæ are a little less thick.

The collection of M. de Castlenau contains a single specimen without exact locality; presumably from Melbourne.

SECTION IV.

Submarginal humeral carina of elytra nearly obsolete. Prosternum with intercoxal part narrow anteriorly, sulcate on base; episterna punctate. Ventral segments punctulate laterally.

* There is evidently a mistake in these figures; judging from the statement which follows that the elytra are longer than those of *C. rubripes* it is probable we should read $4\frac{1}{2}$.

CLIVINA PECTORALIS, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 14.

Robust, convex; prothorax broader than long; elytra oval with base truncate, crenulate-punctate, fourth stria joining fifth at base, submarginal humeral carina hardly developed; prosternum with intercoxal part sharply narrowed, not attenuate anteriorly, sulcate on base, episterna finely punctate; anterior tibiæ strongly 3-dentate. Head, prothorax, legs, suture and lateral margins of elytra reddish brown; elytra piceous brown.

Head not large, punctate between posterior extremities of supra-orbital carinæ; vertex and front convex: clypeus not divided from front, anterior margin widely emarginate, bordered; wings not divided from median part, widely rounded; supra-antennal plates convex, rounded externally, projecting strongly and sharply beyond wings of clypeus; frontal foveæ large, wide; facial carinæ wide, merely a backward prolongation of the supra-antennal plates; facial sulci wide, divergent; eyes convex, not prominent; orbits prominent and convex behind. Prothorax finely shagreened, convex, widest a little before posterior angles (1.3×1.35 mm.), narrowed anteriorly (1.1 mm.); sides short, evenly rounded; anterior margin emarginate; angles obtuse; posterior angles marked; median line strongly impressed: anterior line lighter. Elytra wider than prothorax (2.9×1.6 mm.), oval; shoulders rounded, not marked; striæ entire, deeply impressed, finely crenulate, seventh not interrupted at beginning of apical curve; a short distinct striole at base of first interstice; interstices convex, minutely shagreened, eighth broad, hardly carinate near apex. Intermediate tibiæ with external margin spinulose, the spine nearest the apex a little stronger than others.

Length 4.5-5.2, breadth 1.35-1.6 mm.

Hab.: Queensland — Rockhampton (Coll. Castelnau); N.S. Wales—Clarence River (Lea); West Australia (sent by Mr. French, probably from N.W. Coast).

A completely isolated species among the Australian members of the genus. The external spur of the intermediate tibiæ is very weak and situated not far from the apex.

The description given above is founded on specimens (♀?) from the Clarence River, sent to me by Mr. Lea, which, although appearing to differ slightly from M. Putzeys' description of *C. pectoralis* in having the puncturation of the head, prothorax, and prosternal episterna weaker, seems undoubtedly that species. One specimen (♂ probably), of which only the elytra now remain, is much smaller (4.5 mm.), differently coloured—the elytra being black, with the suture and lateral border reddish—the puncturation of the metasternum and ventral segments stronger, and the ventral segments foveate laterally. In the specimen described above, the puncturation of the prothorax is so obsolete as to require a powerful lens to distinguish it; the metasternum is finely punctate near the sides, also the episterna, and the ventral segments are without punctures or lateral foveæ. A specimen sent to me by Mr. French, as from West Australia, is of an entirely ferruginous colour.

Procera group.

Size large, or above the average. Clypeus truncate-emarginate (median part truncate, wings projecting strongly forward, and roundly obtuse at apex). Elytra with fourth and fifth striæ confluent at base, a submarginal carina at shoulder (sometimes feebly developed, e.g., *C. nyctosyloides*, Putz.). Prosternum with intercoxal part very wide anteriorly, not sulcate on base. Anterior tibiæ 3-dentate, external teeth weaker in ♂ than in ♀; inner apical spine in ♂ long, curved, obtuse at apex.

Fifteen species are associated in this group; of these, twelve known to me, are tabulated below. The group could readily be broken up into seven sections represented by *C. procera*, *C. monilicornis*, *C. oblonga*, *C. regularis*, *C. nyctosyloides*, *C. mastersi*, and *C. marginata*. The species I do not know are *C. elegans*, Putz., *C. prominens*, Putz., and *C. obscuripes*, Blkb.

Table of Species known to me.

- A. Lateral cavities of peduncle punctate or rugulose.
- B. Metasternal episterna elongate (metasternum between intermediate and posterior coxæ longer than posterior coxæ).
- C. Prothorax not longer than broad, mandibles short *C. procera*, Putz.
- CC. Prothorax longer than broad, mandibles decussating (antennæ very short, moniliform) *C. monilicornis*, Sl.
- BB. Metasternal episterna very short (metasternum between intermediate and posterior coxæ shorter than posterior coxæ).
- D. Head with a strong transverse occipital impression..... *C. oblonga*, Putz.
- DD. Head without a transverse occipital impression (or at most only lightly indicated on sides).
- E. Head without a noticeable lateral sinuosity between supra-antennal plates and wings of clypeus. Prosternal episterna rugose on basal declivities..... *C. abbreviata*, Putz.
- EE. Head with a decided lateral sinuosity between supra-antennal plates and wings of clypeus. Prosternal episterna smooth on basal declivities *C. macleayi*, Sl.
- AA. Lateral cavities of peduncle smooth.
- F. Prothorax not broader than long, normally narrowed anteriorly..... *C. regularis*, Sl.
- FF. Prothorax broader than long, greatly narrowed anteriorly.
- G. Mandibles short.
- H. Elytra with striæ deep, entire, strongly punctate; antennæ subfiliform, second joint decidedly longer than third..... *C. nyctosyloides*, Putz.
C. interstitialis, Sl.
- HH. Elytra smooth on sides and apex; antennæ filiform, third joint not shorter than second.

- I. Striæ of elytra simple, interstices
not convex *C. mastersi*, Sl.
- II. Striæ of elytra punctate, interstices
convex on anterior part of disc.... *C. oripennis*, Sl.
- GG. Mandibles long, decussating.
- K. Elytra with testaceous margin ... *C. marginata*, Putz.
- KK. Upper surface entirely black ... *C. gracilipes*, Sl.

CLIVINA PROCERA, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 34; Ann. Soc. Ent. Belg. 1866, x. p. 180; *Scolyptus procerus*, l.c. xi. p. 8.

A widespread and well known species; the following diagnosis will enable it to be identified:—

Elongate, parallel, subcylindrical. Black, shining; legs piceous. Head smooth, lateral margin sloping obliquely and evenly forward from a little before the eyes; clypeus not divided from front; median part truncate; wings strongly advanced, rounded at apex; facial sulci lightly impressed; eyes prominent, lightly enclosed behind. Mandibles short. Antennæ not short, submoniliform, lightly compressed. Labrum 5-setose. Prothorax subquadrate (4 × 4.1 mm.), lightly convex, narrowed anteriorly (ant. width 3.3 mm.), declivous to base; anterior margin very lightly emarginate. Elytra a little wider than prothorax (9.5 × 4.5 mm.), parallel; striæ crenulate, strongly impressed near base, becoming lighter towards apex and sides, fourth outturned and joining fifth at base; seventh interstice carinate at humeral angle, eighth very narrowly and lightly indicated (sometimes obsolete) near apex. Prosternum protuberant; intercoxal part very wide anteriorly, bordered on each side by a strong wide carina, vertical and non-sulcate on base; episterna covered with a faint wavy rugulosity. Lateral cavities of peduncle punctate. Metasternum longer between intermediate and posterior coxæ than length of $\frac{1}{2}$ posterior $\frac{2}{3}$ coxæ; episterna elongate. Anterior femora thick, not channelled below in ♂; tibiæ 3-dentate (much narrower and with external teeth

much weaker in ♂ than in ♀); inner apical spine in ♂ very long, stout, incurved and truncate at apex.

Length 13·5-17, breadth 3·75-4·7 mm.

Hab.: Queensland—Burketown District (French), Rockhampton (Coll. Castelnau); N.S. Wales—Murray and Murrumbidgee Rivers; Victoria; South Australia.

Note.—A specimen in the possession of Mr. Masters from Port Darwin is of the following dimensions:—Head 3·5 × 3·5, prothorax 5·25 × 5·3, elytra 13·5 × 6, length 22 mm. It is the largest *Clivina* I have seen, but, beyond its apparently heavier build, I cannot differentiate it from *C. procera*.

CLIVINA PROMINENS, Putzeys.

Stett. Ent. Zeit. 1866, xxvii. p. 35; Ann. Soc. Ent. Belg. 1866, x. p. 182; *Scolyptus prominens*, l.c. 1868, xi. p. 8.

Putzeys' whole description is in three lines as under:—

Very near *C. procera*, of which it is perhaps only a variety. It is smaller; the prothorax is a little shorter and less broad posteriorly; the elytra are a little narrower at the apex, and the eyes are more prominent.

Length 13½, El. 7, Lat. 3 mm.

Hab.: Australia—Melbourne (Coll. Chaudoir; two specimens sent by Mr. Bakewell).

CLIVINA MONILICORNIS, n.sp.

Cylindrical, subparallel. Head short, subdepressed; mandibles not long, decussating; clypeus emarginate-truncate; antennæ short, moniliform: prothorax longer than broad, narrowed anteriorly; elytra very convex, crenulate-striate, fourth stria joining fifth at base, eighth interstice very narrowly carinate near apex, a submarginal carina at shoulder; prosternum with intercoxal part wide anteriorly, lateral cavities of peduncle deep, finely punctulate; metasternal episterna of medium length; anterior tibiæ strongly 3-dentate. Black, under surface piceous black, legs piceous.

Head short (1.6 × 1.8 mm.), wide before eyes; vertex and front smooth, wide, lightly convex; clypeal elevation prominent, rounded: clypeus divided from front by a strong transverse impression, depressed near anterior margin; median part truncate, bordered; wings strongly advanced, rounded externally, very obtuse at apex, oblique on inner side; supra-antennal plates wide, rounded externally, a light sinuosity dividing them from clypeal wings; eyes globose, prominent, projecting lightly beyond supra-antennal plates; orbits narrow and abruptly constricted behind; facial sulci diverging backwards from ends of clypeal suture; facial carinae thick, prominent. Labrum 5-setose. Palpi stout; penultimate joint of labial about same length as terminal. Antennae with second joint decidedly longer than third, joints 4-10 short, quadrate. Prothorax smooth, longer than broad (3 × 2.8 mm.), narrowed anteriorly (ant. width 2.3 mm.), very convex transversely, lightly convex longitudinally, very declivous to base; anterior margin subtruncate (lightly emarginate behind neck); anterior angles obtuse, hardly marked; posterior angles rounded; basal curve short; border narrow; median and anterior lines lightly impressed; lateral basal impressions distinct, round, foveiform. Elytra very convex, suboval (6 × 3 mm.), lightly rounded on sides, widely rounded at apex, very declivous to humeral angles, these rounded; striae finely crenulate, strongly impressed on disc, weaker towards apex and sides, seventh hardly marked; interstices convex near base, becoming depressed towards apex, first of each elytron together forming a wide lightly raised sutural ridge; the four large punctures of third interstice stronger than usual. Prosternum protuberant, not canaliculate between coxae or sulcate on base; episterna minutely shagreened and very finely transversely striolate. Anterior femora short, wide, compressed: anterior tibiae wide, strongly 3-dentate; upper tooth prominent, triangular; inner apical spine long, curved, pointed; upper internal spine long, slender, acute; intermediate tibiae wide, compressed, external spur strong, erect.

Length 9.5-11.5, breadth 2.6-3 mm.

Hab.: Queensland—Port Denison (Masters).

An anomalous species; the arrangement of the striæ at the base of the elytra and the form of the clypeus associate it with *C. procera*, Putz., and *C. abbreviata*, Putz.; probably it is more closely allied to *C. abbreviata*, Putz., than to any other species known to me, but the longer metasternal episterna seem to preclude its being put with that species. The metasternal episterna are much shorter than in *C. procera*, being very little longer than in *C. gracilipes*, Sl., *C. emarginata*, Putz., or *C. nyctosyloides*, Putz., but much narrower, especially in front, than in those species.

CLIVINA ELEGANS, Putzeys.

Mém. Liège, 1863, xviii. p. 44; Stett. Ent. Zeit. 1866, xxvii. p. 36; Ann. Soc. Ent. Belg. 1866, x. p. 179.

“Nigra, nitida, palpis tarsisque testaceis; labro, antennis pedibusque brunneis. Clypeus truncatus, alis angulatim prominentibus. Pronotum planiusculum, oblongo-subquadratum, antice angustatum, a basi rotundatum, angulis posticis nec prominulis. Elytra elongato-oblonga, punctato-striata, interstitio 3° quadri-punctato. Tibiæ anticæ sulcatæ extus fortiter bidentatæ; intermediae calcaratæ.

“Long. 15, El. 8, Lat. 4 mill.”

The above is M. Putzeys' original diagnosis; it is followed by a lengthy description which, only omitting a few unimportant details, may be thus translated:—

The antennæ are short, rather thick, incrassate, moniliform from the fifth joint.

The mandibles are short, broad, particularly at the base, rather strongly arcuate, not very acute at apex.

The epistoma is very lightly sinuate, closely united to its wings which project strongly in an acute angle, the apex of which is obtuse; the wings are less than usually divided from the supra-antennal plates. The anterior elevation has posteriorly a broad impression, which decreases a little in depth at the centre and at the sides. The whole head is finely punctate. On the vertex a hardly noticeable small impression is seen, and a little further forward on the sides two transverse impressions, which extend a

little backwards. The eyes are not very prominent, their posterior third being embedded in the lateral margin of the head. The impression which divides the head from the neck is hardly marked in the middle.

The prothorax is quadrate, a little longer than broad, narrowed anteriorly, very rounded at the posterior angles, not much prolonged posteriorly; the surface is lightly convex, the anterior margin is widely emarginate; the angles are a little prominent; the sides, cut obliquely for their first half, are regularly curved to the base; the posterior angles form no prominence; only a large internal puncture is seen above a tubercle, which does not project beyond the marginal border. The transverse anterior impression is rather close to the margin; the longitudinal impression extends a little past the first. In the middle of each side of the prothorax, facing the posterior angles, a rather wide shallow fovea is noticed, which extends forward in a straight impressed and more marked line, reaching beyond the anterior third of the prothorax.

The elytra form a very elongate regular oval; their upper surface is depressed longitudinally along the suture on the anterior third; the striæ are punctate, but the interstices are not raised. It is a prolongation of the seventh interstice, which at the shoulder unites with the marginal border; only the interstices 1-3 touch the base.

The anterior tibiæ are wide, sulcate on upper side; externally they have a rather long strong tooth, and above this a second short and broad tooth. The intermediate tibiæ are wide, spinose along the posterior side, which is armed with a spur.

Underneath all the body is covered with undulating transverse striolæ, dotted with rather scattered punctures.

Hab. : Australia (one specimen).

In his "Révision Générale" M. Putzeys has formed a separate group for *C. elegans*, of which he treats as follows, being a translation of his remarks in the *Entomologische Zeitung* :—

Twenty-sixth Group.

It has much resemblance to the twenty-seventh group [*C. procera*]. It differs by its less shining colour, its darker

antennæ, its legs of a blackish-brown, its epistoma with less narrow wings, its thicker antennæ, its eyes enclosed on all sides, the anterior impression of the head a little deeper, its head more convex, very finely punctate, its prothorax more oval and more emarginate in front, its elytra more convex, of a very regular elongate-oval shape, its striæ deeper, the under surface of the prothorax finely striolate-punctate, and particularly by the metasternal episterna, which are short and square; the paronychium is a little longer.

The central carina of the prosternum is broad, canaliculate only between the coxæ

M. Putzeys also says that he had possessed this insect a long time, and that it was given to him as coming from South America. As the greater part of its features show an affinity to the Australian species he adds that he suspects that this country may well be its true habitat.

The impression left upon my mind by a study of Putzeys' description, with specimens of *C. oblonga*, Putz., before me, is that it may well have been founded on a specimen (♀) of that species, and it is to be regretted that M. Putzeys when describing *C. oblonga* did not compare it with *C. elegans*. The only features that separate these species seem to be the punctate striæ and the interstices not raised, with the striolate-punctate under surface of *C. elegans*; however, a specimen of *C. oblonga*, referred to under that species as identical with *Ceratoglossa foveiceps*, Macl., (vide p. 235), presents elytral characters that might be described as are those of *C. elegans*. It is possible the fine punctures of the head and under surface may be a *post mortem* effect; still, as M. Putzeys regarded the species he named *C. oblonga* as undescribed, his opinion, must, I think, be upheld, though not without doubt on my part.

CLIVINA OBLONGA, Putzeys.

Scolyptus oblongus, Putz., Ann. Soc. Ent. Belg. 1873, xvi. p. 10;
Ceratoglossa foveiceps, Macleay, Trans. Ent. Soc. N.S.W. 1863,
i. p. 73.

Robust, elongate-oval. Head strongly transversely impressed behind vertex; antennæ moniliform; mandibles short; elytra oblong-oval; striæ deep, entire; lateral cavities of peduncle punctate; metasternum and metasternal episterna short; anterior tibiæ 3-dentate. Black, shining; under surface minutely shagreened.

♀. Head smooth, narrowed to a neck behind eyes; lateral margins sloping obliquely and evenly forward from a little before eyes; a deep oblique impression dividing clypeus on each side from supra-antennal plates—these impressions sometimes turning inwards and dividing the clypeus from the front at each side: clypeus not divided from front in middle, convex, declivous to anterior margin; this bordered, deeply truncate-emarginate; wings concave, strongly advanced, widely rounded at apex, sloping gently to median part on inner side; supra-antennal plates large, convex, not divided from the wide convex facial carinæ; facial sulci strongly impressed; eyes convex, deeply enclosed in orbits; these large, strongly protuberant (about two-thirds size of eyes) behind eyes; supra-orbital punctures distant from eyes; temporal region strongly rugulose; gulæ finely rugulose. Antennæ stout, moniliform, incrassate; joints 5-10 short, strongly compressed. Palpi with apical joint thick, oval. Prothorax smooth (faint transverse striolæ noticeable under a lens), a little longer than broad (3.7×3.5 mm.), narrowed anteriorly (ant. width 3 mm.), depressed, shortly declivous to base; sides very lightly rounded; posterior angles not marked; anterior margin emarginate, widely and obtusely truncate on each side of neck; border narrow, reflexed on sides; lateral basal impressions weakly developed or obsolete; anterior line deeply impressed. Elytra a little wider than prothorax (7.7×3.8 mm.), subdepressed; sides lightly rounded; base narrow and subemarginate between humeral angles; striæ deeply impressed, entire (the inner ones often obsoletely crenulate), fourth joining fifth at base, but not outturned; interstices convex, eighth shortly carinate at base, narrowly carinate on apical curve; border reflexed; lateral channel wide. Pro-

sternum with intercoxal part channelled, wide anteriorly, almost vertical and non-sulcate on base; pectoral carinæ weakly developed, widely divergent anteriorly. Metasternum much shorter between intermediate and posterior coxæ than length of posterior coxæ. Legs in every way similar to those of *C. procera*.

Length 13·5-16, breadth 3·8-4·6 mm.

Hab.: N. S. Wales—Richmond River (Macleay), Narrara Creek (Sloane), Burrawang (Fletcher).

Allied to *C. abbreviata*, Putz., from which the strong transverse occipital impression, which is characteristic of *C. oblonga*, at once separates it.

The number of punctures on the third interstice of the elytra varies from four to five; the posterior puncture in *C. oblonga* is deep and placed opposite the extremity of the fourth interstice, and is much nearer the apex than in any other of the large species of *Clivina* from Australia. The form of the apical extremities of the third and fifth interstices is worthy of note—these interstices are strongly raised and confluent at their apices, the apex of the fourth interstice terminating in a rather deep depression formed by this union of the third and fifth.

A specimen (♀) is in my collection which I have compared and found identical with the type of *Ceratoglossa foveiceps*, Macl. It is larger (16 × 4·6 mm.) and more convex than typical specimens of *C. oblonga*, has the prothorax a little shorter (3·8 × 3·8 mm.), the striæ of the elytra distinctly crenulate, and the posterior large puncture of the third interstice a little further from the apex; but I cannot think it a different species. The name *foveiceps* was preoccupied in *Clivina* when Sir William Macleay bestowed it on his species; the later name *oblonga* therefore has to be adopted.

CLIVINA ABBREVIATA, Putzeys.

Scolyptus abbreviatus, Putz., Ann. Soc. Ent. Belg. 1873, xvi. p. 10.

This species agrees with *C. oblonga*, Putz., in most features; the head is similar, excepting that the transverse occipital impression is

wanting; the metasternum and its episterna are similar; the legs are similar, but the external teeth of the anterior tibiæ are much stronger. The following brief description will enable it to be recognised:—

Black, legs piceous, or reddish. ♂. Prothorax as long as broad (3.1×3.1 mm.), decidedly narrowed anteriorly (ant. width 2.4 mm.), lightly convex; sides lightly rounded; basal curve short; anterior margin emarginate; anterior angles lightly advanced, widely rounded. Elytra oval (6.5×3.4 mm.); striæ and interstices as in *C. oblonga*, eighth interstice feebly and shortly carinate near apex. Prosternum as in *C. oblonga*, the pectoral carinæ more strongly developed. Anterior tibiæ 3-dentate, the external teeth strong. Under surface minutely shagreened.

Length 12.5-13.5, breadth 3.4-3.8 mm.

Hab.: Queensland—Wide Bay District (Spencer, Masters).

Note.—In the specimen before me, the third interstice has five punctures on each elytron, the three anterior ones not being placed quite similarly on each elytron. In *C. abbreviata* the posterior puncture is placed at the beginning of the apical declivity, not on the declivity at the junction of the third and fourth striæ, as in *C. oblonga*, Putz.

CLIVINA MACLEAYI, n.sp.

Short, robust, convex. Head convex, facial carinæ diverging strongly backwards, clypeus deeply truncate-emarginate; prothorax subquadrate, lightly narrowed anteriorly; elytra oval, strongly striate, fourth stria outturned and joining fifth at base, interstices equal, lightly convex, seventh forming a weak submarginal carina at shoulders, eighth obsolete on apical curve; lateral cavities of peduncle minutely shagreened, not punctate; metasternal episterna short; anterior tibiæ 3-dentate. Piceous brown, prothorax and upper part of head darker.

Head wide before eyes, abruptly constricted on sides behind eyes; front and vertex wide, convex; frontal impressions wide, shallow; clypeal elevation convex, declivous in front: clypeus

divided from front by an irregular shallow impression, this impression obsolete in middle; median part not divided from wings, truncate; wings advanced, rounded at apex and externally, inner side gently oblique; supra-antennal plates short, wide, rounded externally, projecting strongly beyond clypeal wings; eyes deeply embedded in orbits behind, small, convex, hardly more prominent than supra-antennal plates; orbits projecting strongly from sides of head behind eyes; facial carinae strongly developed, converging roundly in front and reaching clypeus. Mandibles short. Labrum 5-setose. Labial palpi stout; penultimate joint not longer than terminal; this thick, obtuse at apex. Antennae short, moniliform; third joint shorter than second; joints 5-10 short, quadrate. Prothorax subquadrate ($2.3^* \times 2.45$ mm.), widest just before posterior angles, a little narrowed anteriorly (ant. width 2.15 mm.), convex, very declivous to base; sides lightly and widely sinuate, rounded to anterior angles; anterior margin widely and deeply emarginate; anterior angles distant from neck, obtuse but marked; posterior angles rounded, not marked; basal curve very short; lateral channel well developed; median line strongly impressed, reaching base; anterior line distinct, very near margin; border narrow, not upturned at posterior angles. Elytra oval (4.5×2.5 mm.), widest a little behind middle; sides strongly rounded; shoulders rounded; apex widely rounded; striae deep, simple, seventh hardly less deeply impressed than others. Prosternum with intercoxal part wide anteriorly, non-sulcate on base; episterna very feebly transversely striolate, overhanging near anterior angles. Anterior femora short, wide, strongly arcuate above, rounded not channelled below; tibiae rather wide, apex short, wide, curved, first external tooth wide, prominent, upper tooth wide, not prominent, inner apical spine thick, truncate, longer than apical digitation (as long as three basal joints of tarsus), upper internal spine finely

* This is the length in the middle; from anterior angle to base the length about equals the breadth.

acuminate; intermediate tibiæ with outer edge spinulose, the external spur prominent and placed considerably before the apex.

Length 9, breadth 2·5 mm.

Hab. : Queensland—Port Darwin, Roper River (sent by Mr. Masters).

A very distinct species, in general appearance much resembling a small species of *Promecoderus*. Its affinity is to *C. abbreviata*, Putz., but it differs greatly from that species by its smaller size; head much wider in front of eyes, more strongly rounded (a strong sinuosity behind wings of clypeus) to anterior angles, the facial carinæ long, incurved, forming a border to the inner side of the supra-antennal plates, eyes more deeply enclosed in orbits, these more abruptly constricted behind; prothorax more quadrate, the sides sinuate, the basal curve still shorter; prosternum with intercoxal part not bisulcate, &c.

CLIVINA REGULARIS, n.sp.

Robust, parallel. Head as in *C. procera*; clypeus deeply emarginate-truncate; prothorax as long as broad, lightly narrowed anteriorly; elytra parallel, simply striate, striæ deep on disc, weak on sides, interstices convex on disc, eighth feebly indicated near apex, submarginal humeral carina short; prosternum with intercoxal part very wide anteriorly, episterna smooth; lateral cavities of peduncle deep, not punctate; metasternal episterna of medium length; metasternum between anterior and posterior coxæ not longer than posterior coxæ; anterior tibiæ 3-dentate. Black.

Head smooth, large ($2 \times 2\cdot2$ mm.), convex, obliquely angustate before eyes; lateral impressions light; clypeal elevation convex: clypeus divided from front on sides, depressed along anterior margin; median part truncate; wings concave, strongly advanced, obtusely rounded at apex; eyes prominent, convex, enclosed by orbits. Prothorax as long as broad ($2\cdot9$ mm. \times $2\cdot9$ mm.), lightly narrowed anteriorly (ant. width $2\cdot4$ mm.), smooth, convex; sides nearly straight, obsoletely sinuate; posterior angles rounded, not marked; anterior margin widely and very lightly emarginate; anterior angles obtuse, but slightly prominent; median and

anterior lines strongly impressed; lateral basal impressions elongate, very shallow. Elytra truncate-oval (6.2×3 mm.), a little narrowed to base, very convex; sides rounded; apex widely rounded; base truncate; shoulders rounded; striæ obsoletely crenulate, four inner ones very strongly impressed, weaker towards apex, fifth, sixth and seventh successively weaker (seventh very faint); five inner interstices convex, seventh and eighth united at base and forming a short, rather broad and lightly raised carina at humeral angle. Legs stout; anterior trochanters not projecting at base of femora; tibiæ with apical digitation short, thick, two external teeth short, thick, prominent, inner apical spine longer than apical digitation, obtuse at apex; external spur of intermediate tibiæ as in *C. australasiae*.

Length 11.5, breadth 3 mm.

Hab. : New South Wales—New England.

Two specimens, both apparently ♂, were sent to me by Mr. Masters. A very distinct species—in general appearance it resembles *C. australasiae*, Bohem., but the smooth prosternal episterna and peduncle, the emarginate-truncate clypeus, &c., show it to be allied to *C. procera*, Putz., and *C. oblonga*, Putz.; probably its nearest ally is *C. monilicornis*, Sl., with which it is associated by the length of the metasternal episterna, but its antennæ, though moniliform, are longer; the head is larger, with wider supra-antennal plates; the prothorax is shorter, less strongly narrowed anteriorly, and without the rounded basal foveæ of *C. monilicornis*; the elytra are less convex. From *C. simulans*, Sl., it is readily distinguished by its thicker antennæ; the form of the clypeus; elytra more rounded on sides, the striæ not punctate; the prosternal episterna not rugulose on the basal declivities, &c.

CLIVINA NYCTOSYLOIDES, Putzeys.

Ann. Soc. Ent. Belg. 1868, xi. p. 10.

Oval, robust, convex. Head large, eyes prominent; prothorax transverse, subtrapezoid, very convex; elytra oval, deeply punctate-striate, striæ entire, fourth joining fifth at base, interstices convex,

eighth interrupted at beginning of apical curve, very narrowly carinate near apex, submarginal humeral carinae obsolete; prosternum with intercoxal part very wide anteriorly; lateral cavities of peduncle smooth, wide, shallow; anterior tibiae 3-dentate, external spur of intermediate tibiae oblique and near apex. Black, legs piceous, antennae and tarsi reddish.

Head large (1.8×2.2 mm.), smooth between lateral impressions; a punctiform impression in middle between eyes; a strong lateral sinuosity between wings of clypeus and supra-antennal plates: clypeus not divided from front, depressed along anterior margin; median part truncate; wings concave, strongly advanced beyond median part, roundly obtuse, oblique on inner side; throat very convex, gulæ with a few faint wavy striolæ; eyes convex, prominent, enclosed on lower side posteriorly. Labial palpi stout, penultimate joint about same length as terminal, this stout, fusiform, truncate. Antennae not long, lightly compressed, not incrassate; second joint decidedly longer than third. Prothorax smooth, transverse (3.2×3.5 mm.), widest a little before posterior angles, greatly narrowed anteriorly (ant. width 2.5 mm.), rounded on sides, evenly convex, gently and roundly, but deeply declivous to base; anterior angles obtuse; posterior angles obtuse, but marked; border thick, widened at and passing round anterior angles; median line deeply impressed; anterior line distinct and near margin; lateral basal impressions wanting. Elytra oval (7.5×4 mm.), convex, wide across base; shoulders rounded; apex widely rounded; striae strongly impressed, entire, coarsely punctate, the puncturation strong on apical third, seventh hardly impressed, but distinctly indicated as a row of punctures; interstices convex for whole length, seventh wide and convex on apical curve, joining first at apex. Prosternum with intercoxal part bisulcate, non-sulcate on base; episterna smooth (only some minute wavy transverse scratches), hardly overhanging anteriorly. Metasternum a little longer between intermediate and posterior coxæ than length of posterior coxæ; episterna rather wide posteriorly. Anterior femora compressed; tibiae with apical digitation long, stout, strongly curved, first external tooth prominent, stout,

obtuse, upper not prominent, upper internal spine slender, very acuminate: intermediate femora long; tibiæ with external spur a little above apex, pointing obliquely downwards.

Length 13, breadth 4 mm.

Hab.: Queensland—Rockhampton (Coll. Castelnau), Dawson River (Barnard).

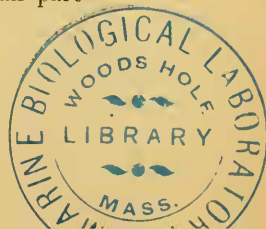
M. Putzeys formed a separate group for the reception of this species, but I have placed it among the large assemblage of species which I term the "*procera group*," in which it is the representative of a distinct section. Putzeys describes the inner apical spine of the anterior tibiæ as equalling in length the apical digitation, not diminishing in width and truncate at apex in the ♂, and acuminate in the ♀; I only know the ♀, in which it does not actually equal the apical digitation in length.

The elytra (only) of a specimen are in my collection received from the late Mr. G. Barnard from Coomoolaroo, Dawson River, in which the fourth stria is free at the base.

CLIVINA INTERSTITIALIS, n.sp.

Oval, robust, convex. Head convex, eyes convex; prothorax transverse, subtrapezoid, longitudinally convex; elytra ovate, wide, deeply punctate-striate, fourth stria joining fifth at base, interstices very convex, eighth interrupted at beginning of apical curve, finely carinate near apex, submarginal carinæ of shoulders obsolete; prosternum with intercoxal part bisulcate, wide anteriorly, non-sulcate on base; episterna smooth, not overhanging in front; lateral cavities of peduncle wide, very shallow, not punctate; metasternal episterna shorter than usual in genus; anterior tibiæ narrow, 3-dentate, apex long, wide, curved; external spur of intermediate tibiæ short, stout, nearer apex than usual. Black, antennæ and tarsi piceous.

Head not large (1.6 × 1.8 mm.), convex, smooth between facial impressions, obsoletely transversely impressed behind vertex; frontal impressions narrow, extending on to wings of clypeus; facial sulci linear, deep, divergent: clypeus with median part



truncate; wings concave, strongly advanced beyond median part, obtusely rounded anteriorly; gulæ convex, hardly at all rugulose. Labial palpi with penultimate joint stout, rather short, about same length as terminal; this wide and obtuse at apex. Antennæ with third joint shorter than second; joints 4-11 short, hardly compressed. Prothorax smooth, transverse (2·6 mm. × 2·9 mm.), widest a little before posterior angles, greatly narrowed anteriorly (ant. width 2 mm.), very convex, strongly and roundly declivous to base; sides rounded; anterior angles obtuse; posterior angles obtuse, but marked: basal curve short; border thick, wide and reaching neck at anterior angles: median line weak; anterior line strongly impressed; lateral basal impressions obsolete. Elytra ovate (5·5 × 3·5 mm.); striæ deep, entire, very coarsely punctate on disc; interstices subcarinate for whole length, narrow and more carinate on apical declivity.

Length 10, breadth 3·5 mm.

Hab.: Queensland—Cooktown (from Mr. French).

This species agrees in all points of structural detail with *C. nyctosyloides*, Putz., of which it may possibly be a marked variety, though I regard it as a distinct species. The following differences from *C. nyctosyloides* may be noted; the smaller size; more convex form; more elongate head; prothorax more convex, narrower, more strongly narrowed anteriorly; elytra more convex, striæ deeper, interstices more convex, especially towards apex.

CLIVINA MASTERSI, n.sp.

Very large, robust, convex. Head as in *C. procera*: prothorax smooth, greatly narrowed anteriorly, convex, strongly declivous to base; basal curve short, rounded: elytra oval, smooth on sides and apex; five inner striæ impressed towards base, first only entire, fourth and fifth confluent at base; sixth interstice narrow, not carinate at humeral angle,* eighth not visible near apex:

* The weakly developed submarginal humeral carina is a continuation of the sixth interstice; it is very narrow and hardly raised.

prosternum with intercoxal part wide anteriorly, bisulcate between coxæ, non-sulcate on base; episterna smooth, hardly overhanging anteriorly; metasternal episterna short; lateral cavities of peduncle feebly developed, impunctate: anterior tibiæ slender, 3-dentate; intermediate tibiæ narrow, external spur short, placed at apex. Black, antennæ and tarsi piceous red.

♂. Head rather large (2.7×3 mm.), convex, smooth, obsoletely and widely transversely impressed behind facial carinæ; sides obliquely narrowed and widely sinuate before eyes: clypeus not divided from front, declivous; median part wide, truncate: wings narrow, impressed, strongly and obtusely advanced; facial impressions strongly impressed, sinuate; facial carinæ short, wide, convex, not greatly raised; eyes prominent, strongly enclosed by orbits on posterior part of lower side. Palpi filiform; labial with penultimate joint not longer than terminal. Antennæ filiform, third joint not shorter than second. Prothorax nearly as long as broad (4.5×4.6 mm.), widest a little behind middle, greatly narrowed anteriorly (ant. width 3.5 mm.), roundly and deeply declivous to base; sides oblique, hardly rounded; anterior margin lightly emarginate; anterior angles rounded; posterior angles rounded; border thick, hardly reflexed on sides, weaker behind posterior angles, extending round anterior angles to neck; median line linear, distinct: anterior line lightly but decidedly impressed; lateral basal impressions shallow, wide, distinct. Elytra oval (10.5×5.5 mm.), convex; sides rounded; shoulders rounded, not marked; striæ simple, four inner ones strongly impressed towards base, first entire, joining second at base, others not reaching apex, successively shorter, fourth not outturned at base, fifth inturned to meet fourth at base, sixth and seventh obsolete; three inner interstices lightly convex near base, sutural interstice of each elytron separately convex on basal third, after that together forming a lightly raised sutural ridge; lateral border narrowly reflexed, reaching nearly to peduncle at base. Anterior femora thick, hardly compressed, lower side rounded; tibiæ slender, apical digitation long, narrow, curved, obtusely pointed, first external tooth prominent, triangular, second obtuse, feebly developed,

middle of lower side greatly raised and forming a prominent triangular tooth above upper internal spine, inner apical spine about as long as apical digitation, cylindrical, curved, obtuse, upper spine long, slender, very acuminate; four posterior legs light.

Length 19, breadth 5·5 mm.

Hab. : Queensland—Port Darwin.

A single specimen of this fine species was sent to me for description by Mr. G. Masters. Excepting a specimen sent to me by Mr. Masters as from Port Darwin, which I cannot separate from *C. procera*, Putz., this is the largest *Clivina* I have seen. It represents a distinct section, its nearest ally being *C. ovipennis*, Sl., which agrees with it in facies, and in form of metasternal episterna and legs.

CLIVINA OVIPENNIS, n.sp.

Elongate-oval, robust, convex. Head obsoletely impressed on each side behind vertex; prothorax greatly narrowed anteriorly: elytra oval, smooth on sides and apex; four inner striæ deeply impressed and coarsely punctate on basal half; eighth interstice obsolete on apical curve; a very feebly developed submarginal carina at shoulder: prosternum with intercoxal part bisulcate, very wide anteriorly, non-sulcate on base; episterna smooth, not overhanging anteriorly (the inflexed margins of the pronotum projecting a little at the anterior angles): lateral cavities of peduncle smooth; metasternum short: anterior tibiæ obtusely 3-dentate; external spur of intermediate tibiæ narrow, short, placed at apex. Black, shining; under surface and femora dark piceous; four posterior tibiæ and tarsi clear brown; antennæ ferruginous.

Head not large (2×1.9 mm.), smooth, convex, lateral margin sloping obliquely forward from a little before eyes: clypeus not divided from front, not bordered on anterior margin; median part wide, truncate; wings not divided from the supra-antennal plates, concave, narrow, strongly advanced, rounded at apex; supra-antennal plates narrow, convex; facial sulci strongly impressed;

facial carinae raised; eyes globose, prominent; orbits feebly developed behind eyes. Mandibles short. Antennae stout, long, subfiliform; third joint not shorter than second; joints 5-10 oblong, hardly compressed. Prothorax smooth, of equal length and breadth (3.5 mm. \times 3.5 mm.), widest a little before posterior angles, greatly narrowed anteriorly (ant. width 2.6 mm.), convex, roundly and deeply declivous to base; sides rounded; posterior angles rounded; anterior margin lightly emarginate, angles rounded; basal curve short; border narrow, reflexed on sides, extending round anterior angles to neck; median line lightly impressed; anterior line strongly impressed; lateral basal impressions lightly marked, elongate. Elytra oval (8 \times 4.1 mm.), strongly and evenly convex; a wide smooth space on sides and apex; base truncate between shoulders; humeral angles rounded off, not the least marked; striae deeply impressed and strongly punctate on basal half of disc, first entire, joining second at base, none of the others attaining apex, successively shorter towards sides, fourth joining fifth but not outturned at base; first interstice of each elytron together forming a convex ridge for whole length of suture, interstices 2-4 convex towards base, flat on apical half, 6-8 not divided from one another, sixth finely carinate at base; border reflexed, reaching very nearly to peduncle. Metasternum and its episterna short (distance between intermediate and posterior coxae a little shorter than length of posterior coxae). Ventral segments smooth. Anterior femora stout, not channelled below; tibiae narrow, first external tooth short, wide, projecting, second a mere obtuse prominence, inner apical spine very long, narrow, truncate.

Length 14, breadth 4.1 mm.

Hab.: North Queensland. (A single specimen given to me by Mr. C. French).

The type specimen is evidently the ♂. *C. ovipennis* is allied to *C. mastersi*, Sl., which it resembles in general appearance; the chief differences being its smaller size; prothorax slightly shorter and more narrowed in front; elytra with deeper and strongly

punctate striæ on the basal part of disc, the interstices much more convex, the suture not impressed near the base, &c.

CLIVINA MARGINATA, Putzeys.

Scolyptus marginatus, Putz., Ann. Soc. Ent. Belg. 1868, xi. p. 8.

♂. Black; sides of elytra for posterior two-thirds, (excepting border) apex and legs testaceous red; antennæ and palpi testaceous. Robust, convex. Head smooth, convex, not transversely impressed behind vertex; front depressed: clypeus not divided from front; median part wide, truncate; wings shortly but decidedly advanced, widely rounded at apex; frontal impressions lightly impressed; facial carinæ feebly developed. Mandibles long, decussating. Palpi long, filiform; penultimate joint of labial rather longer than terminal, of maxillary as long as terminal. Antennæ filiform, third joint not shorter than second. Prosternum a little broader than long (3.8×4 mm.), greatly narrowed anteriorly (ant. width 3.1 mm.), smooth, convex, roundly and deeply declivous to base; basal curve short; sides hardly rounded; anterior margin lightly emarginate; anterior angles obtuse; posterior angles rounded, but marked; border extending round anterior angles; median line lightly impressed; anterior line strongly impressed; lateral basal impressions distinct, wide, shallow. Elytra wide, oval (8.8×5 mm.); five inner striæ strongly impressed, lightly crenulate, first entire, others obsolete near apex, fourth a little outturned and joining fifth at base, sixth lightly impressed except near base, seventh only indicated by a row of fine punctures; five inner interstices very convex at base, becoming more and more depressed towards apex, two inner ones together forming a sutural ridge, three lateral ones confluent except at base, seventh narrow, subcarinate at shoulders, eighth feebly indicated near apex by a very narrow carina. Prosternum with pectoral ridges well developed; intercoxal part very wide, not narrowed anteriorly, non-sulcate on base; episterna not overhanging anteriorly, covered with wavy transverse striolæ. Lateral cavities of peduncle well developed, smooth. Metasternal episterna not long, wide posteriorly. Legs light: anterior femora long, thick, not compressed, rounded on lower

side; tibiæ 3-dentate, narrow, apex short, lightly curved, first external tooth short, triangular, prominent, upper feebly developed, middle of lower side of tibia forming a ridge and ending in a strong triangular tooth near upper internal spine; inner apical spine about twice as long as apical digitation, thick and very obtuse at apex, upper spine slender, finely acuminate; four posterior legs long, light; intermediate tibiæ narrow, external spur very near apex, short, oblique.

Length 15·5, breadth 5 mm.

Hab. : Queensland—Port Denison (Masters).

The description given above is founded on a specimen kindly lent to me by Mr. Masters. This species may be considered the type of a separate section consisting of *C. marginata* and *C. gracilipes*, Sl. The following will be the characteristic features of this section :—Mandibles decussating; clypeus with median part truncate, the wings shortly but decidedly advanced; antennæ filiform, third joint as long as second; palpi long, filiform, the labial with the penultimate joint longer than the terminal; maxillary with penultimate joint about as long as terminal; prothorax widest near posterior angles and greatly narrowed anteriorly, posterior angles marked; prosternum wide between the coxæ, the sides not overhanging in front; metasternal episterna shorter and much wider than in *C. australasiae*, Bohem., but longer than in *C. oblonga*, Putz.; legs light, external spur of intermediate tibiæ small and placed almost at apex, the tarsi long, slender.

CLIVINA GRACILIPES, n.sp.

Elliptic-oval. Head small; mandibles decussating, labial palpi with penultimate joint long, slender; prothorax subtrapezoid; elytra widely ovate, crenulate-striate; fourth stria joining fifth at base, seventh obsolete; eighth interstice shortly carinate at base, not indicated on apical curve; prosternum with intercoxal part bisulcate, very wide anteriorly; lateral cavities of peduncle smooth, shallow; legs light; anterior tibiæ narrow, 3 dentate; intermediate tibiæ narrow, external spur short, oblique, very near apex.

Black, under surface piceous black; legs, antennæ and palpi testaceous.

Head small (1.5×1.5 mm.), convex, smooth; a shallow almost obsolete fovea in middle of vertex; lateral margins sloping obliquely and roundly forward from a little before eyes: clypeus not divided from front, lightly emarginate-truncate; median part wide; wings small, not divided from supra-antennal plates, lightly advanced, rounded at apex, sloping very gently on inner side to median part; supra-antennal plates small, rather depressed; facial sulci lightly impressed, parallel; facial carinæ wide, not greatly raised; eyes large, convex, prominent, lightly enclosed behind. Mandibles rather long, decussating, wide at base, narrow and acute at apex. Mentum deeply emarginate; median tooth very wide, short, obtuse. Palpi slender; penultimate joint of maxillary nearly as long as terminal, of labial longer, terminal joint fusiform. Antennæ filiform, very lightly incrassate; second and third joints of about equal length. Prothorax smooth, broader than long (2.8×2.9 mm.), widest considerably before posterior angles, greatly narrowed anteriorly (ant. width 2.2 mm.), convex, strongly declivous to base; sides rounded; posterior angles lightly marked; base of disc curving gently between posterior angles; anterior margin truncate; anterior angles widely obtuse, finely bordered; border narrow, fine on basal curve; median and anterior lines well marked; lateral basal impressions lightly marked, rather long. Elytra ovate, much wider than prothorax (6.5×4 mm.), lightly and evenly convex, rounded on sides, narrowed to apex; humeral angles not marked; base very lightly emarginate in middle; striæ crenulate, 1-5 deeply impressed on basal half, becoming faint towards apex: interstices convex on disc, minutely shagreened under a strong lens; border reflexed, reaching base of fourth interstice; marginal channel wide. Prosternum not protuberant, abrupt and non-sulcate on base; pectoral ridges short, hardly carinate; episterna minutely rugulose. Metasternum shorter than usual, distance between intermediate and posterior coxæ equal to length of posterior coxæ; episterna considerably longer than broad. Legs light; anterior femora compressed, not

stout, not channelled below; anterior tibiae narrow, apex long, outturned, external teeth small, prominent; posterior tibiae light, a little incrassate, not arcuate.

Length 11, breadth 4 mm.

Hab.: Queensland—Gulf of Carpentaria (a single specimen given to me by Mr. C. French, as from the Burketown District).

CLIVINARCHUS, n.gen.

Head with frontal region a little raised above occipital region, clypeus with median part angulate.

Mandibles short; upper surface depressed; outer margin obtusely angled near basal third.

Mentum deeply emarginate; lobes widely rounded at apex; median tooth long, obtusely pointed, keeled, projecting forward as far as lobes. Submentum large, projecting strongly and vertically from throat; a ridge vertically raised from throat, extending between submentum and base of orbits and defining suborbital channel behind.

Palpi: Labial with penultimate joint short, stout (about as long as terminal), bisetose, terminal joint stout (stouter than penultimate), truncate (hardly narrowed) at apex; maxillary stout, penultimate joint short, conical, terminal joint compressed, oval, obtuse at apex.

Antennae short, stout; four basal joints cylindrical, first stout not elongate, second not long (but longer than third) joints 5-11 short, compressed, decidedly separated from one another, apical joint obtuse.

Prothorax longer than wide, convex, not declivous to base; a raised declivous "collar" (or wide border) along anterior margin.

Elytra very long, cylindrical, punctate-striate; fourth stria sharply outturned and joining fifth at base; no submarginal carina at shoulder; third interstice 4-punctate.

Prosternum with pectoral part not protuberant, intercoxal part wide anteriorly, non-sulcate on base; episterna overhanging along anterior half, smooth—a few faint transverse striolæ perceptible with a lens.

Mesosternum smooth, without a lateral impression on each side of peduncle to receive intermediate tibiæ.

Metasternum large, long, transversely striolate on each side; episterna very long and narrow.

Legs: Anterior tibiæ wide, 3-dentate, apical projection short, strong, external teeth short, wide at base, the edge of the tibia triangularly excised above upper tooth so as to form a fourth small non-projecting tooth, inner spines long; intermediate tibiæ with two short prominent triangular external teeth, the anterior at the apex, the upper a little distance above the apex.

Peduncle wide.

Body winged.

This genus is thoroughly distinct from *Clivina*. Evident differences that may be noted are: its very elongate form, wide peduncle without lateral cavities, the raised and declivous collar along anterior margin of prothorax and the bidentate intermediate tibiæ. The formation of both the upper and lower surfaces of the head is also very different. There are two supra-orbital punctures, and two prothoracic marginal punctures as in *Clivina*.

CLIVINARCHUS PERLONGUS, n.sp.

Very elongate, narrow, cylindrical. Head, prothorax and under surface piceous black; elytra reddish brown; anterior legs and antennæ reddish piceous; palpi and four posterior legs piceous red.

Head (with eyes) broader than long (2.3 × 2.6 mm.); clypeal suture, facial sulci and facial carinæ lost in rugulosity of anterior part of head; this rugose part raised and sharply defined posteriorly between base of eyes; frontal impressions wide, shallow,

irregular, rugose: clypeus with median part divided from wings by a carinate ridge, widely and squarely emarginate, its angles porrect, projecting strongly forward in a triangular prominence; wings small, angular, anterior margin truncate and about on a level with margin of median part; supra-antennal plates short, wide, projecting sharply and widely beyond wings of clypeus, external angles widely rounded; eyes large, globose, prominent, lightly enclosed. Prothorax cylindrical, parallel, very widely and lightly sinuate on each side, longer than broad (4×3 mm.), lightly convex longitudinally, lightly transversely striolate (the striolæ wavy and more strongly impressed near sides); anterior angles very obtuse, rounded from anterior marginal puncture to neck; posterior angles rounded, not marked; basal curve short; base wide; border narrow and reflexed on sides, a little upturned at posterior angles, wide on base, very wide and declivous along anterior margin; marginal channel obsolete on sides. Elytra narrow, cylindrical (10.5×3.5 mm.), shortly, not vertically, declivous to base; shoulders rounded, not marked; striæ entire, closely and strongly punctate, the punctures becoming finer from base to apex; interstices hardly convex; three posterior punctures of third interstice on apical half; marginal channel narrow, not deep, lightly punctate. Anterior legs stout; femora thick, compressed; posterior edge of lower side roundly and widely dilatate; intermediate tibiæ incrassate, external edge arcuate, spinose, bidentate.

Length 18, breadth 3.5 mm.

Hab.: Queensland (sent to me by Mr. C. French as coming from the Gulf of Carpentaria, opposite Wellesley Islands).

Distribution of the Australian Clivinides.

I have thought that a few notes on the geographical distribution of the Clivinides in Australia may be not without interest, though the observations I can offer on the subject must be very defective owing to the scantiness of my knowledge of the range of the various species. The only parts of the continent that have been tolerably well searched for these insects seem to be the

Sydney coastal district; the Melbourne district; the southern parts of South Australia, where the Rev. T. Blackburn has collected; and a part of inland New South Wales lying between Narrandera, on the Murrumbidgee River, and Mulwala on the Murray, over which I have collected, though not with sufficient care. Good collections have also been made by Mr. Masters at Port Denison and Gayndah in Queensland, and at King George's Sound; by Mr. Froggatt at King's Sound; and by Mr. Lea at Tamworth in New South Wales. No use can be made by me, from want of accurate knowledge, of the collections from Melbourne, South Australia, Gayndah and King's Sound.

The Clivinides are a well defined division of the subfamily Scaritini. They reach their greatest development in the warm parts of the earth, and it is, as might have been expected, in tropical Australia that they are most numerous and show the greatest diversity of form. All the Australian genera, viz, *Dyschirius*, *Clivina*, *Steganomma*, and *Clivinotrichus* have representatives in tropical Queensland, the two last being peculiar to that region.

Dyschirius (5 species) seems spread over the continent.

Clivina (83 species) has representatives wherever there is water of any permanence all over Australia. The following are a few remarks on the dispersion of the thirteen groups into which I have divided the Australian species:—

(1) *C. biplagiata* extends over eastern Australia from the Gulf of Carpentaria to Melbourne.

(2) The "*cribrosa group*" (4 species) is typically a western and southern one. *C. frenchi* from Central Australia and Queensland is not closely allied to the other three species.

(3) The "*obliquata group*" (11 species) has its headquarters in the southern and western parts of the continent. The two species, *C. cylindriciformis* and *C. obsoleta*, from tropical Queensland, are both isolated species, not closely allied to one another or to any of the other members of the group.

(4) *C. coronata* is from south-western Australia.

(5) The "*planiceps group*," though spread from the Gulf of Carpentaria to Bass Strait, is probably of tropical origin; it has not yet been reported from the western half of the continent.

(6) *C. grandiceps* is from the neighbourhood of Burketown on the Gulf of Carpentaria.

(7) The "*puncticeps group*" (4 species) is evidently a tropical group with one species, *C. aleluidæ*, in the Murray River watershed.

(8) *C. blackburni* is from Lake Callabonna in Central Australia.

(9) *C. olliffi* is from West Australia.

(10) The "*heterogena group*" (9 species) has representatives already reported from most parts of Australia, though none is yet known from West Australia, south of the tropics.

(11) *C. bovilleæ* seems to have a wide distribution along the northern coastal region.

(12) The "*australasia group*" (27 species) is spread over the whole continent. I have further divided it into four *sections*, of these—*Section I.* (type, *C. sellata*, Putz.—8 species) apparently belongs to eastern Australia, and seems to be of tropical origin. *Section II.* (type *C. australasia*, Bohem.—6 species) is of eastern origin, though now found over the greater part of the continent; it also has a representative in New Zealand and Lord Howe Island. *Section III.* (type *C. basalis*, Ch.—12 species) is spread over all Australia and Tasmania, and has a species in New Zealand. *Section IV.*, founded for *C. pectoralis*, is undoubtedly a tropical type.

(13) The "*procera group*" (15 species) has its headquarters on Eastern Australia. It may be divided into seven sections, of which six have representatives in tropical Australia.

The members of the genus *Clivina* are strong fliers; often in summer evenings they may be noticed flying to the lamps in lighted rooms. All the species are found in damp ground near the margins of rivers, marshes, ponds, or, indeed, any tolerably permanent water; their habits are fossorial. Some species may be found all the year round, though more rarely in the winter

when they hibernate, hidden in the earth, often away from the immediate proximity of water. During floods they may be taken plentifully in the débris drifted along by the swollen streams. Owing to their habits it is evident that their dispersion may be aided by streams, and there seem no reasons, except those of climate and food-supply, why a species having once gained a footing on any watershed should not spread along all the streams of such watershed.

With the insufficient data at my command no conclusions or inferences of any practical worth in regard to the distribution of the Australian species of *Clivina* can be attempted; but the following suggestions may be offered:—(1) The sameness in climate will have permitted a wide range for species from east to west. (2) The number of different species may be expected to be greater on the coastal side of the mountain ranges owing to the greater number of separate river systems. (3) The large area included in the watershed of each of the two great river systems which collect the waters flowing from the inland slopes of the dividing ranges of Eastern Australia, from the boundary between The Northern Territory of South Australia and Queensland to Western Victoria, viz., the Barcoo watershed and the Murray watershed, will have been conducive to a wide range for the species found in the areas of these river systems. There certainly seems to have been a migration from tropical Queensland towards South Australia by way of the Barcoo watershed, and thence into Victoria and New South Wales by way of the Murray and its tributaries; this is evidenced by the range of *C. procera*, *C. quadratifrons*, and *C. felix*; while *C. australasiae*, *C. basalis*, *C. sellata*, *C. angustula* and *C. adeloidæ* are species that evidently have had their distribution helped by the Murray river-system.

In conclusion, attention may be drawn to the great scarcity of the *Clivinides* in New Zealand (only two species) in comparison with their great development in tropical Queensland as offering some evidence against an actual land connection in former geological times between New Zealand and North Eastern Australia.

The following lists of species give those known to me as coming from (1) Tropical Queensland, (2) the Sydney district, (3) the part of New South Wales between the Murray and Murrumbidgee Rivers along the 146th parallel of longitude (Riverina), (4) South West Australia.

Tropical Queensland.	Sydney.	Riverina.	South-west Australia.
<i>C. biplagiata</i>	<i>C. biplagiata</i>	<i>C. obliterated</i>	<i>C. cribrata</i>
<i>C. frenchi</i>	<i>C. angustula</i>	<i>C. biplagiata</i>	<i>C. coronata</i>
<i>C. cylindriciformis</i>	<i>C. sellata</i>	<i>C. melanopyga</i> ...	<i>C. dorsalis</i>
<i>C. obsoleta</i>	<i>C. australasie</i> ...	<i>C. riverine</i>	<i>C. bicolor</i>
<i>C. quadratifrons</i> .	<i>C. vittata</i>	<i>C. planiceps</i>	<i>C. olliffi</i>
<i>C. carpentaria</i> ...	<i>C. lepida</i>	<i>C. quadratifrons</i>	<i>C. angustipes</i>
<i>C. grandiceps</i>	<i>C. dilutipes</i>	<i>C. tumidipes</i>.....	.....
<i>C. punctaticeps</i> ...	<i>C. sydneyensis</i> ..	(<i>C. angustula</i>*).	.....
<i>C. lobipes</i>	<i>C. basalis</i>	<i>C. sellata</i> .....	.....
<i>C. flava</i>	<i>C. oblonga</i>	<i>C. australasie</i> ...	.....
<i>C. odontomera</i> ...	.....	<i>C. vagans</i>.....	.....
<i>C. boville</i>.....	.....	<i>C. simulans</i>.....	.....
<i>C. cara</i> .....	.....	<i>C. basalis</i>.....	.....
<i>C. occulta</i>.....	.....	<i>C. felix</i>.....	.....
<i>C. ferruginea</i>.....	.....	<i>C. procera</i>.....	.....
<i>C. felix</i> .....	.....	.....	.....
<i>C. rubripes</i>.....	.....	.....	.....
<i>C. procera</i>.....	.....	.....	.....
<i>C. monilicornis</i>...	.....	.....	.....
<i>C. nyctosylloides</i>..	.....	.....	.....
<i>C. interstitialis</i>...	.....	.....	.....
<i>C. ovipennis</i>.....	.....	.....	.....
<i>C. marginata</i>.....	.....	.....	.....
<i>C. tenuipes</i> .....	.....	.....	.....

The following is a list of the authors who have dealt with the nomenclature of the Australian Clivinides, with references to their papers :—

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* I believe this memoir appears in Mém. Liège, Vol. xviii., but my separate copy bears the following date, "Leodii, 1862," so that it was evidently published in 1862.

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